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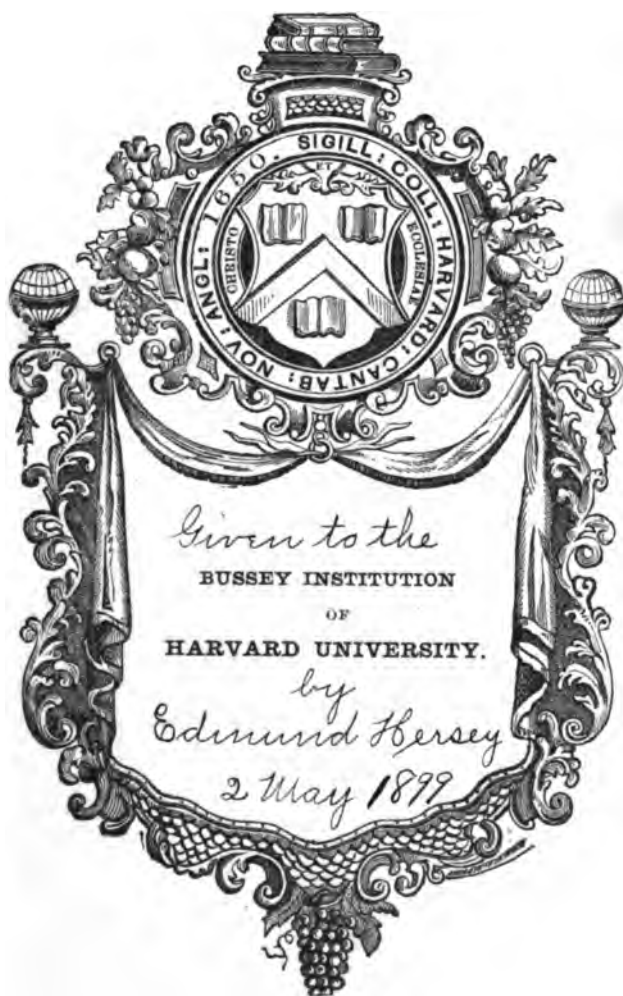
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---

SIMON BROWN, EDITOR.

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HENRY F. FRENCH, } EDITORS.

# CALENDAR FOR JANUARY.

"How dead the vegetable kingdom lies."



JOURNEYING along its silent course, another YEAR has gone, with its joys and sorrows, pleasures and pains, successes and failures. The beginning of each month

may afford us an opportunity to review that which has passed, and the beginning of a NEW YEAR affords a good opportunity to look back over the reports of the several months, and take a general review of the entire year. The merchant and man of business now foot up their books, and ascertain the results of the labors and speculations of the

year. It is well for us, that the journey of life is divided by stations and stopping-places, at which we may pause and take a retrospect of the ground over which we have passed. We may recall the difficulties we have often met, the dangers we have encountered, the pleasant passages we have had, the agreeable scenes by which we have been entertained, the cheerful companions who have accompanied us, the aids we have received—all the various incidents that have occurred to us. We may bring before our minds the instances in which we have done or felt wrong—have been hasty, or inconsiderate, or unwise, or have injured the feelings or interests of others. We may enjoy the satisfaction of reflection on what we have done that is kind, or benevolent, or good. We may look forward to the journey that is before us, and see how we may avoid the mistakes we have

made, and the difficulties we have met with, and thus by a wise consideration, be enabled to pursue our future course with more pleasure and satisfaction than we have the past.

"Know thyself," is a maxim of so much importance to our happiness and success in life, that the ancients ascribed its origin to the gods. We cannot know ourselves without frequent and searching examinations of our outward and inward life—of our actions, and motives, and feelings. And when is there a better time for such examination than the present, when another year has passed away, and a new year is commencing?

When the mariner has completed his voyage, he takes his chart, and retraces his course to the point from which he sailed. He marks the course of the winds and currents, and observes the breakers and sunken rocks that he found in his way, and thus the experience of the past assists him in the future. Thus should we all do, both in our business affairs, and in our social and moral culture.

If we have failed in any of our plans, let us review the whole ground, and ascertain, if possible, to what circumstances the failure was due, that we may avoid a failure in future. If we have been successful, let us know to what circumstances success was owing, that we may achieve the same success hereafter. It is only in this way, that we can profit from our experience. For want of this retrospection, many hard-working men fail to learn anything from their experience. After many years of toil—of success and want of success, they have no more definite knowledge that may avail them as a guide, than they had when they commenced. It has been truly said that a man's experience does not depend upon the years he has lived, but upon the accurate observation he has made. A young man may have more experience than a man with grey hairs,—certainly he may have acquired more of that knowledge that will be of value to him in after life.

One great reason why farming is so uncertain in its results, is because men profit so little by their experience,—because they can make so few observations,—because they observe with so little accuracy,—and fail to record the results of their observations. Thus the experience of the past affords but little aid in the future.

The chemist has the records of the past before him. He records his own experiments, and their results, with the nicest accuracy, and can repeat them at his pleasure.

The astronomer records not only the results of his measurements and calculations, but every step of the calculations themselves, that they may be verified by others.

The physician records his observations upon diseases and remedies, and thus the physician of to-day has at his command, not only his own experience, but the experience of those who have lived before him. Man is the only being upon earth that profits by the experience of others. Animals of the present generation are no wiser than those of the past. They exhibit no more skill, no more sagacity, but blindly follow the same instincts that guided their predecessors.

Since the art of printing was invented, and the records of experience have been thereby greatly multiplied, men have rapidly improved in the knowledge of material things, and in the ability to use them for their advantage and convenience. What makes the difference between the educated and the uneducated man? The former adds to the knowledge acquired by the exercise of his own faculties, the knowledge possessed by those who lived before him, while the latter relies chiefly upon his own observations. But the educated man has not accomplished his whole mission until he has added his mite to the accumulated treasures of knowledge. Every good thought, every well-defined fact, adds something to the common stock, from which every one may draw according to his necessities and convenience.

If all the farm experience of the past season could be collected, and collated, and all that is valuable could be recorded, it would make a book of reference of great value. If the same thing could be done for a series of years, we should arrive at facts of inestimable value. The experience of years and generations past would be converted into guides and aids for the present. This would be a work of great labor and perseverance. But we will not despair—something is done towards its completion every year.

When Lieut. MAURY wished to determine the winds prevailing at any season in any direction of the ocean, he collated the log-books of hundreds of navigators, who, during a succession of years, had sailed over that section, and thus by immense labor, learned in what direction the winds

blew, and on what days in the year, and thus, at length, arrived at the result, that certain winds prevailed in certain sections at certain seasons of the year. Thus facts were established of essential importance to commerce. The experience of the past was made to contribute to the advantage of the present. But if navigators had traversed the ocean without recording the course of the winds, the present generation of seamen would be no wiser in this respect than their predecessors, and would have continued to encounter the storms, and beat against the head winds at unfavorable seasons, as they did, all of which they are now able to avoid.

When the log-books of our farmers for a succession of years and seasons shall be carefully collated, and facts, established by the experience of hundreds, be placed on record, future agriculturists will be able to lay out their course with more confidence, and with more certainty of reaching the results at which they aim. Our agricultural papers, the books of our county and State societies, and our boards of agriculture, afford the means of making the record, and we may hope that some *Maury* will one day arise, and condense from the experience of the past a book of wisdom, that shall be of as much value to agriculture as the charts of the winds are to navigation.

Something like this, it seems to us, should occasionally be the current of the farmer's thoughts during the month of JANUARY. And if it is so, it will not fail to be of more substantial benefit to him, and to secure more favorable results in the item of profits, than many days of anxious toil, guided less by wisdom and the light of experience.

#### AN EXPERIMENT FOR THE COUNTY SOCIETIES.

COMMONWEALTH OF MASSACHUSETTS—AGRICULTURAL DEPARTMENT.

*Boston, December 5, 1859.*

At a meeting of the State Board of Agriculture, held on the 1st inst., it was

*"Voted,* That the several Agricultural Societies receiving the bounty of the State be required to offer three premiums for the most thorough, exact and reliable experiments upon the proper depth of applying manures, payable in the fall of 1862, as follows:—

*"Select a level piece of land of any convenient size, from twenty square rods up to as many acres or more, which should be as nearly equal in its character and conditions as possible. Divide it into five equal parts, numbering them 1, 2, 3, 4 and 5, for a rotation of three years.*

*"Divide the manure which it is proposed to apply, and which should be of a uniform character, into four equal parts. At the time of first plowing in the spring, spread evenly one-fourth of the manure upon plot No. 1, and then plow the whole field of an equal depth. Apply another fourth part of the manure to plot No. 2, and then cross*



plow the whole field to about half the depth of the first plowing. Spread another fourth of the manure upon plot No. 3, and harrow or cultivate the whole field; after which sow or plant the whole evenly, with any crop preferred. Finally, spread the remaining quarter-part of the manure upon plot No. 4.

"Observe that by pursuing this course, each of the five lots will receive equally, a deep plowing, a shallow plowing, and a harrowing or cultivating, the only difference in them being that in No. 1 the manure is buried deep, in No. 2 shallow, in No. 3 buried only slightly, but coated with loam, and in No. 4 left exposed upon the surface; while No. 5 gets no manure. The manure is to be spread broadcast and as evenly as possible. The after cultivation should be the same on each of the lots, and the harvest of each should take place at the same time.

"Let a statement of the character of the soil, whether light or heavy, dry or moist, leachy or retentive of manures, the crop of 1859, kind and amount and mode of application of manure in 1859, size of field covered by the experiment, depth of first plowing, kind and amount of manure used in 1860, kind of crop, when and how sown, number of times and manner cultivated, and weight of product on an average rod of each plot, be made in 1860, and returned in the annual report of each Society.

"If there is a double product, as grain and straw, corn and stover, let the weight of the secondary product be given on each plot.

"If the competitor weigh the whole crop instead of estimating it by an average rod, there will be no objection to such a course.

"A brief synopsis of the weather for each of the following months, by dividing each month into three parts, and using the terms dry, moist, and wet, to indicate the general character of the weather, will also be expected.

FIRST THIRD.	MIDDLE THIRD.	LAST THIRD.
May, June, July, August, September,		

"A similar report of all the above items, except the nature of the soil, will be made in 1861, and in 1862, when the premiums will be awarded. No manure is to be applied to the second and third crop."

"Voted, That the Secretary of the Board be requested to offer premiums which will secure an adequate compensation for the time and labor consumed in the experiment."

I hereby notify your Society of the above vote. Evidence of a compliance with it will be required before I shall feel authorized to draw a certificate for the bounty to any Society.

One of the greatest obstacles in the way of agricultural progress is the difficulty of obtaining reliable facts and statistics as a basis upon which to establish principles and construct theories. As a general rule, theories are first advanced, and then isolated facts are brought forward for the purpose of proving their truthfulness. It is true that agriculture is not, in the usual sense of the term, and probably never will become, one of the exact sciences; yet there are many things connected with it which ought to be taken out of the region

of conjecture, and placed, by repeated and multiplied experiments, upon a more substantial basis. A single fact or experiment may be of only trifling value in itself considered, but when added to scores or hundreds of others, the whole collectively may elucidate a doubtful point, or settle a vexed question.

With these considerations in view, the Board asks and requires the attention of every Society in the State, to render any aid in the solution of the question here considered, and to act in concert with it, and with each other, in such a way as to give to the result the greatest possible practical and scientific value. I would suggest that the rotation be limited to corn, grain and grass.

Allow me to call your attention to the Act of 1859, ch. 232, sections 1, 2 and 3, and especially to sections 4 and 5, authorizing the Board to make the above requirement, and the penalty of a disregard of, or a failure to comply with it.

I would simply suggest that premiums of \$25, \$20, and \$15, have been offered by some of the Societies, and that it is desirable that no offers should be smaller than these amounts, as the object above indicated is to induce a multiplicity of experiments.

CHARLES L. FLINT,

Sec. State Board of Agriculture.

For the New England Farmer.

#### A WET MEADOW.

I wish to ask through the *Farmer* in regard to a bay meadow that I have. It contains about five acres, and the muck, ten feet from the shore, is about eight feet deep; in the centre I have never found any bottom. I have dug down eight feet, and then run a pole down ten feet, and not found the bottom. I have dug a ditch through the centre of it, and several side ditches, five feet wide and eight feet deep. But on account of a meadow below, I cannot drain it but about eight inches from the top, where the water stands all the time.

About three years ago, I took a piece of it, and cut the top all off, and put on sand, two inches deep, and then put on a top-dressing, and sowed on herds grass seed in August, and since I have had great grass. But the bogs are growing up again, and I don't know what to do with it. The muck is the finest I ever saw. I had to wheel on all the sand, as no team can go on to it. Will some one tell me, through the *Farmer*, how to manage this meadow? How will cranberries do on it? How shall I fix it for them?

West Townsend, Mass., 1859.

REMARKS.—You must drain more thoroughly, and then you can make a garden of such a meadow. If those owning land below, prevent your draining, call the laws of the Commonwealth to your aid. See Act on Draining, chapter 104, 1855, entitled an Act to authorize the making of Roads and Drains, in certain cases.

BRINE POISONOUS TO ANIMALS.—The *Kentucky Turf Register* says a gentleman at Lawrenceburg, Indiana, recently emptied brine from a pork barrel into the yard. A number of hogs and one horse partook of it. In less than six hours the horse and seven hogs were dead.

*For the New England Farmer.*

### IS FARMING PROFITABLE?

It is not always considered the province of a "farmer's paper" to afford amusement as well as instruction. There is a sort of gravity in the record of crops and the manner of producing them, which, if it does not absolutely preclude the idea of a joke, leaves us very uncertain as to the proper place for it to come in. But your correspondent "Pinkham," of Chelmsford, has put to rest all doubt upon the subject, so far as he is concerned. That gentleman, in the *Farmer* of November 12, undertakes to show that the business of farming—some branches of it, at least—don't pay; and by an array of figures, apparently satisfies himself, at least, that his position is a true one. He first takes up the good old crop of Indian corn, and insists that it brings the farmer who raises it into debt at the rate of ten dollars per acre; and very naturally wishes to know how long at that rate, it will take the farmer to get rich. I have known cases of this kind of arithmetic before. I knew a farmer once who insisted that he could buy his pork a great deal cheaper than he could fatten it; that he could purchase his corn a great deal cheaper than he could raise it; that all his crops, in fact, cost a great deal more than they came to. It did not take many years for the sheriff to set his stakes around that man's farm.

But let us examine some of Mr. Pinkham's figures. All his items, for the mere labor of cultivating an acre of corn, count up to \$26, and besides he adds \$3 for interest and taxes on land, \$3 for fencing, &c., \$5 for shelling and marketing, and \$10 for the manure; making in all \$47 per acre. He then credits 30 bushels of market corn, \$2 worth of soft corn, and \$5 for pumpkins and stover, and strikes a balance of \$10 against the crop.

Now I undertake to say that the farmer who expends more than \$15 worth of labor on an acre of corn, reckoning the use of his teams and implements of all kinds, don't know anything about farming. The value of the manure is perhaps set low enough at \$10 per acre; but then it ought to be considered that not more than half of this manure becomes exhausted in a single year, and that at least \$5 ought to be credited towards the manuring of the next year's crop. I admit that the labor and manure for an acre of corn may with safety be put down at \$20 to \$25. As to the shelling and marketing, the good farmer ought to shell his corn during the winter evenings, instead of playing checkers at the nearest grocery; and so far from being obliged to go to market with his corn, his neighbors will take it at his door, at good prices, and thank him besides. Good northern yellow corn is not one of the articles which go a begging.

Then let us look at the crop itself. Mr. P. puts it down at 30 bushels to the acre. I undertake to say that any land, which, taking one season with another, under the pressure of ten loads of manure, will not average 40 bushels to the acre, is very poor corn land, and not worth \$40 per acre, or anything like it. I do not consider 50 bushels to the acre a great crop. The best acre of corn I ever saw, was in Castleton, Vt., some 35 years ago, which drew a premium at the agricultural fair on the basis of 131 bushels to the acre. But all 40 bushels a fair average, and we have, ac-

cording to Mr. P.'s figures, \$40 for the crop. Then the stover and pumpkins which he sets down at \$5, I call worth at least \$10. The stover of an acre of good corn is worth as much for cattle in the winter as a ton of good hay—to say nothing of the pumpkins, which, I admit, are usually of no very great account, though in some seasons they add something to the general value of the crop.

Now it is plain that Mr. Pinkham and myself do not agree. He makes the corn crop \$10 worse than nothing per acre, while I figure out a profit of \$25; a difference of \$35 per acre. It is hardly necessary to say that both of these estimates cannot be correct. But I honestly believe, that, at the worst aspect of the case, the truth cannot go back from my estimate so as to meet his, half way. I have long considered the corn crop as not only one of the most profitable, but an indispensable one for New England. It is a crop that does not fail, on an average, once in twenty years. It leaves the soil in better condition for future tilth than any other crop. It adds largely to the farmer's means of keeping stock. It forms one of the cheapest and healthiest portions of our food. It may be used in more forms and for more purposes than any other grain. Such being its importance in all its aspects, I regret to see anything in print calculated to discourage the farmers of New England in raising it.

I may hereafter have something to say about Mr. Pinkham's estimate of the cost of raising stock. I only wait to see whether he has found any item of farming that is profitable.

*Somerville.*

E. C. P.

*For the New England Farmer*

### HOW I RAISE BRONZE TURKEYS.

My first object is to secure large, strong and well-formed birds. I prefer a male bird that has seen two winters, and weighs not less than 30 pounds. The last season I used one of 39 pounds. I prefer old hens; for although the young hens lay earlier, yet the young of the old hens are larger and stronger. I prefer hens of from 15 to 20 pounds in weight; when the time for laying approaches, I take flour barrels with one head out, lay them on the side, prepare a nest in the barrel composed of leaves, with a few tobacco stems to keep the lice away, cover the barrels with a few brush, put a hen's egg in each nest, and leave the turkeys to deposit their own, which they usually do. I remove the eggs each day until the turkey inclines to set, when I give her 20 eggs, from which I usually get from 18 to 20 young. Close the barrel each night with a piece of lattice work made of laths, to prevent the entrance of night-walkers.

The first day of hatching I do not allow the mother to leave the nest, or feed the young. On the second day, instead of cooping the mother, I prepare a pen for the young, by nailing boards on to four short pieces of slit work, so as to make a pen about 15 feet square and 18 inches high; this can be easily moved to a new spot, as it should be in warm weather, as often as once a week, or the turkeys will become sickly. For the first week I feed mostly on boiled egg, boiled hard and chopped fine enough for them to swallow, with now and then a meal of fish worms, cut or broken into small pieces. Nothing gives them more strength,



or makes them grow so fast, as fish worms. After the first week, I feed on curd, made of thick, sour milk, and on corn meal, ground coarse as for hominy, and wet with thick, sour milk, to which I add a very little coarse sand, to prevent crop-bake, with which many young turkeys die when fed on meal without it.

As soon as the young ones are able to fly over the side of their pen, I allow them, in good weather, to range with the mother, and feed on insects,—if these are scarce, I feed a little, night and morning, until they are more plenty—but grasshoppers give most bone. Buckwheat I have found the best grain to give size. If the weather is stormy while turkeys are young, I drive them under a shed, or into the barn cellar, the floor of which is covered with fine litter. If any get chilled, cover them with cotton and place them by the stove, and put down a few fish worms, and they are soon smart again. With this method I have succeeded in raising turkeys, while others have lost theirs—even during the last cold and wet season. With this treatment, an old Java hen, at one brood, gave me 17 fine turkeys, but a hen turkey did better still. I have never had a turkey have the gapes, or any other disease. H. S. RAMSDELL.

*West Thompson, Conn., Nov., 1859.*

#### JOHN CHINAMAN AS AN AGRICULTURIST.

In the eyes of the Chinese, human excrements constitute the true substance of the soil, (so Davis, Fortune, Hedde, and others tell us,) and it is principally to this most energetic agent that they ascribe the activity and fertility of the earth.

Except the trade in grain, and in articles of food, generally, there is none so extensively carried on in China as that in human excrements. Long, clumsy boats, which traverse the street canals, collect these matters every day, and distribute them over the country. Every Coolie, who has brought his produce to market in the morning, carries home at night two pails full of this manure on a bamboo pole.

The estimation in which it is held is so great, that everybody knows the amount of excrements voided per man, in a day, month or year; and a Chinese would regard as a gross breach of manners the departure from his house of a guest, who neglects to let him have that advantage, to which he deems himself justly entitled, in return for his hospitality.

In the vicinity of large towns, these excrements are converted into poudrette, which is then sent to the most distant places, in the shape of square cakes, like bricks. For use, these cakes are soaked in water, and applied in the fluid form. With the exception of his rice fields, the Chinese does not manure the field, but the plant.

Every substance derived from plants and animals is carefully collected by the Chinese, and converted into manure. Oil cakes, horn and bones are highly valued; and so is soot, and more especially ashes. To give some notions of the value set by them on human offal, it will be sufficient to mention that the barbers most carefully collect and sell, as an article of trade, the somewhat considerable amount of hair of the beards and heads of the hundreds of millions of customers, whom they daily shave. The Chinese know the action of gypsum and lime; and it often happens that

they renew the plastering of the kitchens, for the purpose of making use of the old matter for manure.

No Chinese farmer ever sows a seed of corn before it has been soaked in liquid manure diluted with water, and has begun to germinate; and experience has taught him, (so he asserts,) that this operation not only tends to promote the growth and development of the plant, but also to protect the seed from the insects hidden in the ground.

During the summer months, all kinds of vegetable refuse are mixed with turf, straw, grass, peat, weeds and earth, collected into heaps, and when quite dry, set on fire; after several days of slow combustion the entire mass is converted into a kind of black earth. This compost is only employed for the manuring of seeds. When seed time arrives, one man makes holes in the ground; another follows with the seed, which he places in the holes; and a third adds the black earth. The young seed, planted in this manner, grows with such extraordinary vigor that it is thereby enabled to push its rootlets through the hard, solid soil, and to collect its mineral constituents.

The Chinese farmer sows his wheat, after the grains have been soaked in liquid manure, quite close, in seed beds, and afterwards transplants it. Occasionally, also, the soaked grains are immediately sown in the field properly prepared for their reception, at an interval of four inches from each other. The time of transplanting is towards the month of December. In March the seed sends up from seven to nine stalks with ears, but the straw is shorter than with us. I have been told that wheat yields 120 fold more, which amply repays the care and labor bestowed upon it.

It is quite true that what suits one people may not on that account suit all countries and all nations; but one great and incontrovertible truth may, at all events, be learned from Chinese agriculture, viz., that the fields of the Chinese cultivator have preserved their fertility unimpaired and in continued vigor ever since the days of Abraham, and of the building of the first pyramid in Egypt.\* This result, we also learn, has been attained solely and simply by the restitution to the soil of the mineral constituents removed in the produce; or what amounts to the same thing, that this has been effected by the aid of a manure, of which the greater portion is lost to the land in the system of European (and American?) cultivation.—*Liebig's Modern Agriculture.*

\* Vessels of Chinese porcelain are found in the pyramids, of the same shape, and with the same characters of writing on them, as on modern China at the present day.

*For the New England Farmer.*

#### MARKET DAY IN ESSEX COUNTY.

MESSRS. EDITORS:—The last "market day" of the season came off yesterday, with good success, if a multitude of animals and a multitude of farmers, gathered together, are to be taken as evidence of the fact. How many bought, and how many sold, I cannot say; but this I can say, there was a good opportunity to do both, and so far as I understood the murmurs of the crowd, it was done to a considerable extent. The great oxen from New Hampshire were there. Every one who examined them, expressed their admiration of the

symmetry of their forms, and the brightness of their looks. The one partly Durham was most admired. Whether their weight was 6500 or 7000 pounds, I cannot say; their keeper was rather shy of scales. At all events, they were big enough, and fat enough, to rejoice the hearts of many on a Thanksgiving day, provided all the turkeys had run off, and there should be no *extended liquor around*, and no *little man to extend it*.

As "line upon line" and "precept upon precept" have ever been helpers in a good cause, I send you such views as have occurred to my mind in relation to underdraining—in the course of somewhat extended observations, on some of the best conducted farms in our county the past season. The motto of our farmers is, "Make the best of what you have." If a man can, by an expenditure of fifty dollars per acre, make his lands produce two, three, or four times as much, as without such expenditure, this I reckon good economy. I can point out many instances, within a few miles distance, where this has been done, and I trust there are many other fields where it will be done.

Truly yours, J. W. P.

South Danvers, Nov. 16, 1859.

*For the New England Farmer*

#### FRENCH'S FARM DRAINAGE.

With a simple "please accept," I received some time since a copy of this work from the editor of the *Farmer*. It was an acceptable present; although it suggested the thought that I was indebted for the gift rather to Gov. Brown's personal knowledge of the "thorough drainage" of my purse, than to any successful experiments in the application of the system to my land.

I have read the book carefully; "read, not to contradict and refute, nor to believe and take for granted, but to weigh and consider." I do not propose to attempt a "review" of the work. This has been done by abler pens. I wish simply to give expression to a few thoughts which its perusal has suggested to my mind. And if, in doing so, I shall indulge in a little fault-finding, I think it will be gratifying to the author, by way of variety; for, so far as I have seen, the numerous "notices" of his book have been of unmixed commendation and praise.

As I have not the vanity to suppose that my opinions are entitled to a very conspicuous position among the practical suggestions of your correspondents, I propose to write a few short articles, that may be put into any spare corner of your pages, on some of the many topics discussed in the "Farm Drainage;" and will begin with the

#### ANTIQUITY OF DRAINAGE.

After a brief introductory chapter, our author enters upon the "History of the Art of Draining" with the following opening sentence:

"The art of removing superfluous water from land must be as ancient as the art of cultivation; and from the time when Noah and his family anxiously watched the subsiding of the waters into their appropriate channels, to the present, men must have felt the ill effects of too much water, and adopted means more or less effective to remove it." p. 24.

I must confess to great veneration for antiquity. I believe there is much truth in the declaration that "there is nothing new under the sun," not-

withstanding the many "new" inventions of our progressive age. The question of the antiquity of drainage is, therefore, to my mind, a most important one. For if farmers in other times, and in circumstances similar to our own, have found draining necessary, then may we reasonably conclude that eventually we shall be obliged to pursue the same course.

The Bible contains frequent allusions to agriculture, during some four thousand years of man's occupation of the soil, in countries where "thou sowest thy seed, and waterest it with thy foot," as well as in those "of hills and valleys that drinketh water of the rain of heaven," and as a part of that history, which is philosophy teaching by example, is, I think, very properly alluded to by our author in this connection; however some may be disposed to smile at the idea of a Bible argument on draining.

His specific allusion to the Flood naturally directed my attention to the Mosaic account of that event. We are told that on the first day of the first month of the 601st year of Noah's age, he removed the covering of the ark, and looked, and behold the *face* of the ground was dry. Nearly two months longer did the "anxious" voyagers remain in the ark. The "water of drainage" was still in the soil. Impatiently may we suppose they watched the slow process of its removal. Finally, in the second month, on the seven-and-twentieth day of the month, *was the earth dried*—"thoroughly drained." Noah came forth from the ark, and the Almighty covenanted with him, "neither shall there any more be a flood to destroy the earth."

Turning over a single leaf of the sacred record, we find, in the account of Lot's separation from Abram, that the plain of Jordan was chosen—not because it was thoroughly drained, not because the ill effects of too much water did not happen to be felt there, but simply because "*it was well watered everywhere*." And from Genesis to the parable of our Saviour, in which the seed of the sower "withered away because it lacked moisture," frequent references are made to ill effects of drouth, but, so far as I am aware, not a solitary one to "the ill effects of too much water."

As a curse, it is said "the rebellious dwell in a *dry land*;" and as a reward to the righteous, "he shall be like a tree planted by the rivers of water." It is promised that "he that watereth, shall himself be watered;" but nowhere except in some new translation that I have not seen, is it said, "he that draineth, shall himself be drained."

In relation to the writings of "Cato, Columella and Pliny," who, our author informs us, mention draining, I can say nothing, because I have never seen their works. In this connection, however, I will allude to a statement, which I saw not long since in a newspaper, to the effect that the Emperor Napoleon had returned from his Italian campaign an enthusiastic advocate of irrigation.

That the agriculture of the Chinese furnishes little evidence of the antiquity of draining may be inferred from the fact that, among a set of models of Chinese agricultural implements now in the Museum of this State, there is not a single one adapted to any of the processes of draining, while two of the most expensive and complicated are machines for irrigation.

But all this argument was scarcely necessary, on my part. The chapter which thus opens with the assertion that draining must be as old as the art

of cultivation, is only half written when the confession is made that James Smith, who "came into general notice about 1832, seems to be in fact, the first advocate of any system worthy the name of thorough drainage." (p. 37.)

This leaves the subject of drainage where, in my opinion, it belongs—among the unsettled theories of our own peculiarly theoretic age. S. F.

Winchester, Nov., 1859.

#### CARE OF OLD APPLE TREES.

Many farmers who have old apple orchards are neglecting them, and in many cases cutting them down, to make room for young trees. This is poor policy, to say the least. Old trees, by the exercise of a little care and skill in managing them, may be made almost as productive as young ones, and in a much shorter time. All that is essentially requisite to ensure this result, is to trim them, carefully cutting away all the diseased and broken limbs, and to free the trunks and larger limbs of the "scurf" and moss, and afterwards to insert grafts—care at the same time being taken to lighten the soil, and make it rich, especially in the vicinity of the roots. In renewing an old orchard something like the following course may be advantageously pursued—the proprietor having first examined the trees, and decided whether they have sufficient vitality to renew their former energy under proper treatment.

In April or May we should remove the rough bark from the body and large limbs of the trees with a scraper, an implement like those used by boat-builders in removing the rosin from the seams of boats and vessels, and afterwards scour the entire surface with a mixture of sharp sand and ashes, mixed with soap and water. Every limb should be treated in the same way, whether large or small, that can be come at conveniently, and care taken that all the moss and rough bark is removed.

*The trimming should not be undertaken until about the middle of June*, when all crooked and diseased wood should be removed with the sharp-stemmed tools, reserving only such shoots and small limbs as are of suitable size to graft. If the trees are old and very much decayed, the number retained for this purpose should be small, as there may possibly not be enough energy or vital power in the system to sustain a large number, and as too dense a top will necessarily tend to abridge the recuperative action by producing too much shade.

The soil should also be thoroughly loosened around the roots, and filled with strong and invigorating manure, and kept entirely free from weeds and grass. The best stimulus, probably, that can be applied, is a compost made of forest leaves, well decomposed, house ashes, lime, gypsum and common stable manure. From fifteen to twenty bushels of this should be allowed to every large

tree, and so worked into and incorporated with the soil as to ensure its coming in close contact with the roots. If the soil be of a light arenaceous, or sandy texture, a load of fine clay should be spread over the surface, above the manure.

In removing the limbs, all the stumps should be coated with wax or tar softened with tallow, or what is equally cheap and more easily applied, gum shellac dissolved in alcohol. The reason why so many old trees perish after the abscission of the larger limbs, is, that no care is taken to ensure the healing of the wounds, which let out the life-blood and energy of the system during the ascent of the sap, leaving long, black lines of decaying bark as a perpetual reproach to the unskilful or perverse manager.

The second year the trees may be grafted, and if the tops promise not to be thick enough, new branches may be permitted to start, to be engrafted subsequently, and in such places as will ensure a symmetrical and desirable form to the tops. The most eligible shape for an apple tree is that of an umbrella reversed; but this must be a matter of taste with most persons.

So far as working the soil and manuring is concerned, our method refers to trees standing by themselves; where they are regularly set in orchard form, the best way would be to plow the whole surface carefully and manure broadcast.

This course may seem too precise and expensive to some persons,—but if so, let them try the cleansing, pruning and manuring process on a single declining tree that they have long valued, and see what a wonderful restoration will be effected.

*For the New England Farmer*

#### PROFIT OF FARMING.

I notice a piece in your paper of Nov. 12th, 1859, headed, "How to reckon the Cost of Farm Products," and signed T. J. Pinkham, Chelmsford, 1859. Mr. P. gives us a very particular statement of the cost of raising, and the value of one acre of corn in dollars and cents, which statement I am not disposed to find fault with; but am disposed to take it as it stands. I would only simply remark, that in Chelmsford, and its surrounding towns, where it is known that a farmer has any corn of his own raising to sell, instead of soliciting purchasers, he will have five times as many call on him as he can supply; this shows that a shilling a bushel is rather a high price to charge for shelling and selling corn; but still I am willing to take all his figures, just as they are, and thank friend Pinkham for his close and fair calculation. It is just what I have been hoping some one would do, and hope we will still have more statements of the same nature, from those who are disposed to believe there is no profit in farming. But I think his story will leave this subject as it is. I think it would have a tendency to lead young men who are now thinking what they shall do for a living into a great error. There are two

sides to every thing. His estimated cost of plowing is fair, and sufficient for plowing an acre of old pasture, trodden by the cows for years. If this was the kind of land, I will still add a little more experience to it. At the last hoeing of the corn, charge fifty cents for a half-bushel of rye, seventy-five cents for a bushel of red top seed, and twenty-five cents for sowing it over the ground, thus increasing the loss to \$11.50.

After having been cultivated through the season, according to the writer's account, what farmer, who has his senses, when the sun shines on this acre of land in 1860, with the grass and rye then growing upon it, will not say that this acre of land is worth double what it was on the morning of the tenth day of May, 1859, before the plow broke the sod? I will suppose this acre of land to be an acre of hay land, run down so as to need plowing, which we cannot suppose bore more than ten hundred to the acre. Is it not reasonable to suppose if this ground is sown down to barley and grass seed, that it will, for years, produce one ton to the acre? And cannot any man buying standing grass, afford to pay as much for one ton of grass standing on an acre of ground, lately plowed, as he can for a ton and a half, where he has to swing the scythe and the rake over three acres of ground to collect the hay of a poorer quality?

Whether the acre of land the writer speaks of was intended to be improved for pasture or mowing land, it is plain to be seen that the cultivation of the ground, while the corn crop was growing, rendered it capable of producing double its former value of grass for years to come. And this gives the profits in farming.

Although he did not tell us in words, that there was a profit in farming, he came so near it, he unlocked the door, and made it very easy to swing open and let us look in. Go on, friend Pinkham; give us more statements, remembering that agriculture is so much like pure old gold and silver, that it will continue to shine as long as you continue to scour it, and a long time after. But if you should ever be able to convince me that there is no profit in farming, you will give me more anxiety, and cause in me more alarm, fearing that the world will come to an end by starvation, than Miller's preaching, and all his followers, ever did!

ASA G. SHELDON.

Wilmington, Mass., Nov. 14.

#### EXTRACTS AND REPLIES.

##### HOW TO MAKE AN OBSTINATE HORSE DRAW.

In looking over the last number of your paper, (Nov. 12,) my eye fell upon an article taken from the *Cotton Planter*, entitled "To make an obstinate horse pull." In reading it, it brought to my mind an instance of Yankee ingenuity used for the same purpose, although of a different kind or contrivance, and of which a friend of mine was an eyewitness, winter before last, in Northern Vermont. As it is fully as infallible a method to make such a horse pull, as the other, and as it may be of use to many of your subscribers in a similar case, I give it to you, as follows.

As my friend was riding along one day on horseback, he saw two men, each with a heavy load of wood upon his sled. One of the horses of the team behind becoming very obstinate, a variety of ways were tried to make him draw, but with-

out avail. He would pull backwards so as to prevent the other horse from drawing. After coaxing, whipping, &c., in vain, the following method was very successfully tried. A stout rope was made fast to the obstinate animal's tail, and then passed under his belly in such a way as to pass between both the hind and the fore legs, and the other end was made fast to the front team. When all was ready, the horses of the front team were started, and no horse, I will venture to say, ever pulled better. Let others try the same method, and they may be assured, that if it does not work successfully, it is because the animal does not care enough for his tail, to follow it. A VERMONT.

Burlington, Vt., 1859.

##### FOWL MEADOW GRASS.

MESSRS. EDITORS:—When I was a boy, in my native town, Lancaster, Worcester County, there was a tract of land lying on both sides of the Nashua River, which had never been cleared, offered for sale, which my father bought. A large portion of the estate was pine plain. He hired help to cut off the lumber, and to clear the alders from the interval. There were large pieces of native grass he mowed. He did not know the name. I remember one of his hands said it was the same as a kind he mowed in "Fowl Meadow." They called it Fowl Meadow grass, so named from a very remarkable bird found dead there. None knew its name, or place, or kind. I never knew it cultivated till I reaped off the heads and sowed some fifty-six years ago, which I have often done since, sometimes quite successfully. I have never had it do well, mixed with other kinds of grass seed, or sown in spring or upland. But sown on the surface of a burnt damp soil, it does admirably. It will not run out, if cut late. I will not say that early cutting kills it, or that it requires the annual dropping of ripe seed, but, as requested, give my experience. BENJAMIN WILLARD.

Holyoke, Nov. 14, 1859.

##### A CARROT CROP.

I have cultivated this year a small piece of land to carrots which has been sown to the same crop for the two years previous. It is three rods wide, and seven rods long, making 21 rods of ground. The carrots were sown about the middle of May, and where the carrots missed, I set turnips, thinned and hoed three times, at the cost of about three dollars, and on the 24th and 25th of October, dug and housed 102 bushels of carrots and 20 bushels of turnips.

H. H.

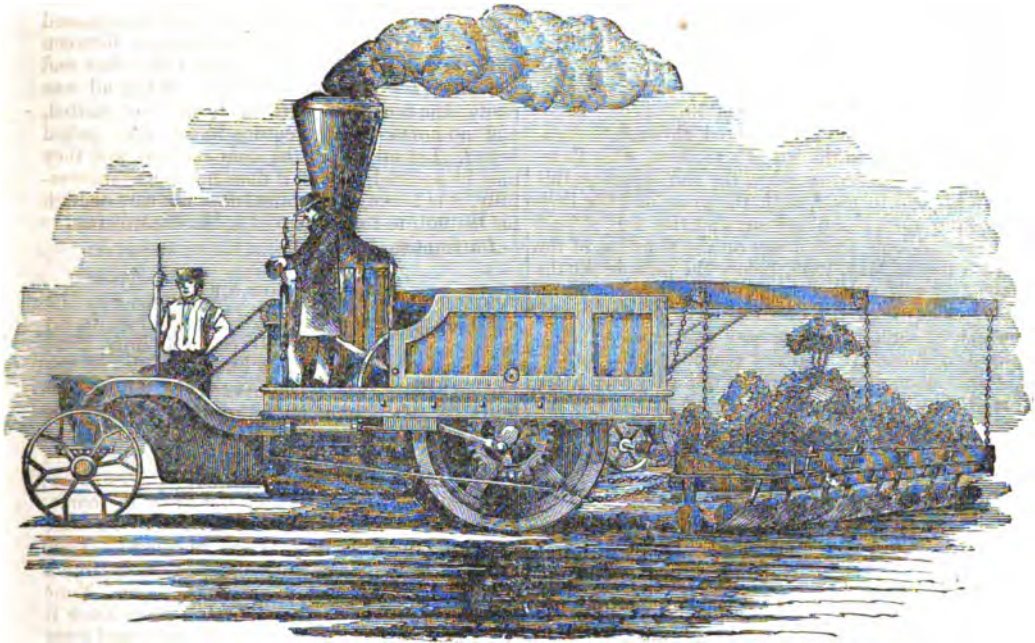
Clarendon, Vt., Nov., 1859.

##### MUST AN OWNER FENCE HIS LAND?

A reader of the *Farmer* would like to inquire through its columns, if there is any law he can enforce so as to make a neighbor build half of the fence against his woodland? INQUIRER.

Milford, Mass., 1859.

REMARKS.—An owner *must* keep up his half of the fence as long as he improves the land. If he desires to let it lie in common, he must give six months notice to all adjoining occupants. See Revised Statutes, Chap. 19, Sect. 2, and same chapter, latter part of Section 15.



J. M. FAWKES'S STEAM PLOWING MACHINE.

We present the reader, to-day, with an engraving of the first Steam Plow, we believe, that has been put into practical operation in this country. We do this, more with a view to keep the reader acquainted with what is going on in the world of agricultural machinery, than with any expectation that it will be adopted in New England during the present century. It is probable that its use cannot be made profitable except on extensive tracts of clear and pretty level land, or on large estates owned by individuals, that have been brought under a high state of cultivation.

In the recent trial at the U. S. Fair in Illinois, it was said that its ease of motion, the facility with which it may be turned, and the manner in which the plows may be controlled, all commend it to the consideration of a discriminating public, and its successful and extraordinary performance upon proper soils have elicited the highest commendation and praise. It will not answer upon stumpy ground, or in any other in which the plows will be constantly meeting obstructions which require them to yield or break. On a large portion of our farming-lands, especially on our western prairies, however, this machine seems destined to be of very important and immense service, furnishing, according to the estimate of the

committee of the Illinois State Fair, the means of doing this work for one-fourth of its present expense.

The illustration of this machine, given above, was kindly furnished us by Mr. FAWKES, the inventor. We hope it will meet his own expectations, and prove a machine of value to the world.

*For the New England Farmer.*

#### GRAPES FOR OPEN CULTURE IN MAINE.

MR. BROWN:—The cultivation of grapes in Maine is yet in its infancy; but I am happy to say a lively interest, in some portions of our State, is beginning to be awakened, from the fact that it is found they pay as well as other desirable fruits, and are at least as reliable. We have our full share in Bangor, of grapes cultivated under glass, but it cannot be expected that many persons in our country towns will afford the expense.

It is important for us to find those varieties which are *hardy, early, of good flavor and productive*. All these qualities are indispensable for our success in Maine, for open culture.

Several of our pomological gentlemen are engaged in originating new varieties of grapes, and it is whispered one of the distinguished horticulturists is about bringing out several new varieties which may be valuable acquisitions to our present stock.

We especially need varieties that will ripen in favorable locations *every season*. This has been, for many years, the great desideratum with us in Maine, and somewhat shared throughout New England. Therefore, the person who will furnish it, will be a public benefactor, and will be deserving a rich reward, and doubtless will obtain it.

So far as I can learn in Maine, the Catawba is so late it is entirely out of the question, and also even in New England. The Isabella is a little better, but nearly useless for Maine. The White Sweetwater, on the Penobscot, has done better than any of the older varieties, notwithstanding its unpopularity in other States. This variety, for the last 15 years, at Bangor, has been very profitable. The vines are productive and the grapes sell readily. The vines also are older and stronger, and thus have the advantage of young vines of new varieties.

So far as I can learn, the Black Cluster, (also an old variety,) flourishes in Montreal and other parts of Canada, and where it has been planted in Bangor it has ripened well in good locations. But of the newer varieties which have ripened with us are the following, naming the earliest first, and then in succession: Hartford Prolific, Concord, Diana. Each of the above I consider good, and are saleable. These will increase in value with us, as the vines become strong with age. I have some vines of the Early Muscadine, but they are not called for, though it is early. I have many Delaware and Rebecca vines, but they have not yet shown fruit with us, and till they are "proved and tried," few will venture to make the trial of them.

You will confer a great favor on the people of the Penobscot country, if you will advise them when valuable new varieties that are very early, hardy and good flavored, are offered in the market, which you would recommend.

Bangor, Nov., 1859.

HENRY LITTLE.

P. S.—The Clinton is an early grape of good color, but is so acid as to be generally expelled from the gardens on this river.

H. L.

#### IS FARMING PROFITABLE?

No one thing operates more injuriously to the interests of agriculture than the widely-spread and popular idea, that farming is not profitable. It is almost a work of supererogation to reply to the charge, that the cultivation of the land, as an occupation for the mass of the people, is not a profitable employment, because it is evident to all who will look, that it is from this source that all supplies for the sustenance of man and beast are mainly drawn. The art of agriculture underlies all other arts, and sustains them all. Cease the cultivation of the soil, and commerce, manufactures, all sciences, and mechanic arts, and even breath itself, would soon cease.

The pursuit of agriculture as an occupation, may not be as profitable under all circumstances, as some other pursuit. It may be better for the people of a sandy tract of country on the sea-shore, to turn their attention to fishing, than to raising grain or grass, or for those in a mountainous and

rocky country to make the water of the valleys turn their wheels to transform forests into various articles for household use. There may be reasons why individuals in all our towns should find employment in agriculture less profitable than some others in which they might engage. But with an average price of labor, land and implements, and with that degree of skill which the land demands of all, we do not believe that many acres of land are ever cultivated at a loss, when the crop is not injured by blight, frost, or some other casualty.

In the *Farmer* of Nov. 12, Mr. T. J. PINKHAM, of Chelmsford, Mass., sent us an article entitled, "*How to Reckon the Cost of Farm Produce*," in which he intended to show, by a single illustration of the culture of an acre of corn, that the farmer loses, rather than makes, money, by his farming operations. We did not then, nor do we now, think that his premises or conclusions were correct, but gladly published his bold article for the purpose of arousing public attention to this matter, and, if possible, of establishing a more correct opinion in the public mind. In this, we are happy to say, there is now a fair prospect of succeeding. As we then supposed would be the case, men of great experience in farming matters have taken up the glove thrown down by Mr. Pinkham, are criticising his positions sharply, and reversing the picture he drew.

The past season has been an unfavorable one in which to obtain a good crop of Indian corn,—too much cold and wet weather prevailing early, and it being too cold and dry in the latter part of the season; and yet, by exercising the proper care in selecting the land, in manuring so as to give the young plants an early and vigorous growth, as well as to sustain the corn during its time of maturing, we have never harvested a sounder or better crop of corn in any season. It has given us *sixty-five* bushels to the acre, most of which is suitable to be sent to the stores to be sold for seed corn.

We have not kept the precise cost of this crop, but near enough to show that it was not over seventy-five cents per bushel. Let us see—corn is worth now one dollar a bushel,

Sixty-five bushels, at \$1.00, is.....	\$65.00
Cost of 65 bushels, at 75 cents, is.....	\$48.75

Profit.....	\$16.25
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Stover, equal to one ton of best hay.....	\$16.00
100 bushels turnips on same land.....	10.00

\$26.25

Such is the present year's result with us, and under the same mode of treatment, we have no doubt similar results would follow nine times in ten. We believe that the work of a good farmer for twenty days, will bring a crop of corn on an average of our New England land, that shall range along from forty to sixty bushels to the acre. He must be a man of judgment; must not spend five



or six days in getting out the witch grass, from an acre at the first hoeing, instead of destroying it by very late fall, and very early spring, plowing. If he makes this mistake, or some other as great, he labors at a loss, and adds five or six dollars to the cost of his crop! And so with regard to several other points which it is scarcely necessary to enumerate.

*For the New England Farmer.*

#### THE HUBBARD SQUASH.

WHAT IT HAS DONE THIS SEASON, WHEN TO BRING IT TO THE TABLE, ETC.

In many localities this has been a hard squash year. Correspondents from northern New England, central New York, several of the western States, and a portion of Pennsylvania, make mention of frosts fatal to vines, while the drought which late in the season prevailed in north-western New England, a portion of the west, and in some sections of our own State, was almost equally fatal. These, with the usual casualties from bug and borer to which vines are subject, have disappointed the anticipations of hundreds of enterprising men, who with the close of the season have reaped but their trouble for their pains. In an old town from which this now somewhat celebrated squash first went forth, with two exceptions, the yield has been very satisfactory, the average yield having been not far from six tons to the acre. My friend, Mr. Looney, from 15,200 feet of land (about one-third of an acre) obtained 7000 pounds of fine specimens, or at the rate of about ten tons to the acre; on the other hand, a friend whose land was but poorly drained, obtained from his half acre hardly sufficient squashes to pay for his seed. Neither extreme is a guide to the sensible cultivator. For my own part, I have so much faith in the public appreciation of this squash, founded on a personal acquaintance of its good qualities of fifteen years standing, that I have now seventy-two tons in store, and permit me, Mr. Editor, to refer any of our friends, who from unavoidable causes have failed in their attempts to raise it, to an advertisement in this paper. I am afraid that many experimenters are making a mistake in determining the quality of the Hubbard squash. It is not claimed of the Hubbard that it is the best of fall squashes; those who like a fine grained, dry meated squash will find nothing to excel the Hubbard in the early fall, but it does not gain its highest quality, its sweet and rich, nutty flavor, till winter opens.

A word about the purity of the Hubbard squash. Literally, any variety of squash is pure only when it is entirely free from any admixture with any other variety; but *practically*, no squash (the crook-neck perhaps, excepted) is found pure to this degree. For practical purposes, and in an honest use of the term "pure," a squash may be so called after two or three years of entirely isolated culture, great care in the meanwhile being exercised in the selection of seed. When the Hubbard becomes crossed with the autumnal Marrow, the fact becomes very conspicuous from the strong contrast in color; while the Marrow, when crossed with the African or South American varieties, may so conceal the fact as to make it evident to the critical eye only. Making a fair allow-

ance for the difference, and the fact that what are sometimes termed crosses, are but the product of seed of various varieties that were smuggled in the manure, and I think we may infer that the Hubbard has, by careful culture, now attained a high degree of purity. The presence of the two varieties, the blue and green, indicate of necessity no want of purity, the difference being only in color, while the various shades in these two colors for the most part but indicate different degrees of ripeness. Whether my theory as regards the degree of purity possible to be attained by this squash be correct or incorrect, (and I would confine my remarks to the seed of last spring's planting,) the public may rest assured that whatever progress it is possible to make in this direction by isolated culture, will be as carefully attended to in the future as it has been for the two seasons past. In conclusion, Mr. Editor, permit me to invite any of our farmer friends who may like the notion of looking on seventy-two tons of Hubbard squashes, to take a trip this way, where I will be happy to play the part of exhibitor, and answer any Yankee questions to the extent of my ability.

Marblehead, Mass. JAMES J. H. GREGORY.

*For the New England Farmer*

#### A LITTLE MORE ABOUT DRAINAGE.

BY JUDGE FRENCH.

MY DEAR BROWN:—My table is loaded with letters and papers about drainage, and I know not what to do with them better than to give them, or some notice of them, to our readers. And first, here is a letter from Edmund Ruffin, of old Virginia, and a volume, published by him in 1855, of "Essays and Notes on Agriculture." The writer is described on the title page, as "A practical farmer of Virginia, from 1812, founder and sole editor of the *Farmer's Register*, member and secretary of the former State Board of Agriculture; formerly agricultural surveyor of the State of South Carolina, and the first chosen president of the Virginia State Agricultural Society." The volume contains, among the rest, an Essay on Draining, one on Clover Culture, one on the Management of Wheat Harvest, one on the Weevil, one on "Embanked Tide-marshes and Mill-ponds, as Causes of Disease," and one on the "Usefulness of Snakes!"

Mr. Ruffin was a farmer, it seems, in 1812, before I was born, and he has diligently served the cause of agriculture ever since. In 1838, he re-published Elkington's System of Drainage, by Johnstone, and he probably better understands that system than any other man in this country. Now, for one, I love to honor a man like this, one who through evil report and good report, stands by the cause of agriculture. He may advocate slavery, if he will, and we will take no offence when he sends us pro-slavery documents. Such "incendiary publications" do us no harm. Eli Thayer and his emigrants, with free labor and New England thrift, will argue these questions on Vir-

ginia soil, and show that free men can live where slaves and their masters starve, and the ballot-box, by-and-by, will peaceably settle the vexed question.

Such another man was Isaac Hill, of New Hampshire. No matter how politics boiled and bubbled, though he was in the hottest of it, Gov. Hill had a heart and hand for the farmer. These men, wherever they are, North or South, are the prophets of agriculture, who have been for a half century telling this generation the things which we begin but just now to believe and practice. If Mr. Ruffin will pardon me, I will send a part of his letter, which is too valuable to be kept private, for publication.

*Old Church P. O., Va., June 13, 1859.*

DEAR SIR:—I return you my thanks for your interesting and instructive volume on "Farm Drainage," which you were so kind as to send to me by mail. I have just finished reading it. It puts in a still stronger light than I had before understood and admitted, the great benefits of thorough draining, and especially by means of tile pipes. The plates (showing plans of executed drainings,) are illustrations admirable for their clearness. I also find, and greatly approve, in your directions, what has seemed to me a great and culpable omission in all the elaborate European directions that I have read; i. e., sufficient warnings of the numerous dangers of failure of operation of covered drains, because of omitting some one or other of the necessary precautions. I am very sure that if a new beginner were to construct drains by following precisely the directions given by Stephens, Thaer, or any of the numerous didactic treatises on this subject, that not one would operate well for a year, and probably not through the first heavy rain.

But while you give proofs of greater rewards for such works, when effective, I have also learned from you to fear more for the imperfection of such labors, by the inexperienced, even when most care shall be used. If I could have obtained tile pipes at a reasonable cost, I would gladly have used them years ago. But I am now convinced that if I had done so, every drain would have been a failure, from some imperfection then not fully appreciated. To start the work successfully in a new locality, (or anywhere in Virginia,) two things are needed, neither of which we have. First, The pipes to be bought at fair prices, or to be made on the farm where needed; and second, a capable, scientific drainer to lay off the plan of drainage, and to direct the general constructions. I am no longer a practical farmer, or personally concerned in the operations—having transferred my farm, and business, and the bulk of my property, to my children. But for the public interest, I should be very glad if such skill and knowledge as you have, or can avail yourself of, for these ends, could be brought to our country.

As soon as I can convey the necessary order to the bookseller, I shall direct to be sent to you by mail a copy of my "Essays and Notes on Agriculture," which I infer has not fallen under your notice. It contains an earlier publication on draining than the communications to which you

refer. These earlier directions were published when I had but a contracted and dim perception of the remarkable natural feature of an underlying, water-glutted sand bed, which is the foundation of my theory and plan of drainage, and which is both the cause of the great evil (of excessive wetness) of a vast extent of our country, and the great facility for removing that evil. When the earlier article was written, I had indeed lately discovered, and profited by that natural feature, in my own operations. But I did not know that the same character extended beyond the limits of my own farm. But by subsequent investigations, I found that the same character belonged to a connected region of immense extent—and inferred that the like existed also under the bottom lands of many rivers far beyond the bounds of the region referred to. If I were now to write a second edition of the first piece, it would be very much altered from its present form, as well as much extended.

With this, I shall also send to you my last published pamphlet, on another subject—on one of the many branches of the great subject of negro slavery—on which, (from your locality,) we probably differ in opinion. If so, I beg you to understand that nothing therein was designed to offend such readers as yourself, or scarcely expected to meet their eyes.

Very respectfully,

EDMUND RUFFIN.

#### WOMEN AND FARMING.

What follows, below, is a portion of the remarks made by the Rev. A. L. STONE, of Boston, at the annual dinner of the Norfolk County Agricultural Society, in September last. No man knows better than Col. WILDER, the President of the society, what kind of men to call around him on such occasions,—and well was his careful attention to this point repaid; for at no similar gathering have we ever known so much said that was practical and encouraging, and at the same time so eloquent and beautiful.

President Wilder introduced his distinguished guest to the multitude before him, and after a few pleasant introductory remarks, Mr. S. said:

It is a pleasant surprise to me to find the agricultural interest represented by so many of the gentle and more domestic sex. And yet their presence on such an occasion I believe to be in every respect legitimate and wholesome. For their proper connection with this interest is intimate and vital. The original description or definition of a wife is that she is a helpmeet to man. Just in what way, or in what variety of ways, this fitting help is to be rendered, that original document does not set forth. The practical answer exhibits its diversities so varied as never to repeat themselves. Sometimes this sphere of helpful fellowship is very much restricted, and again almost indefinitely broadened. The wife of the German farmer limits this sphere only with the boundaries of his estate. Her nursery is out of doors in the open field. Its canopy is the leafy shade. Its carpet the green turf or the soft brown mould. There her little ones roll, and tumble and sleep all day, while she keeps even stroke with her husband in



the day's toil. On a day's ride in the diligence through a pleasant portion of Bavaria, I amused myself by jotting down the occupation of a dozen or so of ladies, as I met then in succession. The first two were equipped with the deep, unwieldy boes of the country, and were hoeing potatoes on a hillside; the third was plodding along on the road barefoot, bare armed, &c., with a burden on her head that would have broken the back of a moderate sized mule; the fourth and fifth were swinging scythes with the regular action of the practiced farmer, one of them leading the procession and keeping well ahead. Of the succeeding three, one was raking hay, one was pitching, and one sat on the top of a load, loading, while the only man of the group was driving the oxen. The next four were attendants upon house masons, and were carrying bricks and mortar on their heads up tall ladders, with an ease of step and balance that argued them experts at their trade. I have seen women in that same country holding a plow, and in some instances assisting a dumb ally—I mean a four legged one—to draw the same agricultural implement.

I suppose that some of us should not exactly covet this style of female co-operation, even in the stress of harvest season. But the question occurred to me here, whether there were not some sort of co-operation the wives and daughters of our farmers could render their lords in that calling, and if so, what. Now I take it, it is the desire of every true wife to have at least an intelligent sympathy with her husband's calling. There is here and there perhaps one sustaining the relation of a wife, to whom it is enough to share her husband's revenue, leaving out his cares and toils as trifles not worthy her regard. There may be here and there a husband whose ambition is to keep his more delicate half in blissful ignorance of all his out-of-door work, whether plowing or financiering. But I suppose the old fashioned and better notion is that of reciprocal sympathy between these fellow-pilgrims.

I never would marry a couple, if I knew it, who had any other idea of the tie, no matter what the fee might be. And perhaps I may be permitted to add, that with right views on this point, I am ready to join any number of couples together with a trifling pecuniary proviso.

But if the sympathy of which I have spoken be an intelligent sympathy, it should take some pains to be informed. I believe that an agricultural literature—and we may say with just exultation that we have now an agricultural literature—is quite as healthful and stimulating a literature in the drawing-room as that which deals in fashion plates and love-sick heroines. I don't think it would be unwomanly, in short, for the wives and daughters of our farmers to be able to converse wisely and wittily upon agricultural topics, with their husbands and fathers, or with gentlemen visitors. Such a conversation might easily vindicate itself in contrast with the rapid frivolities making so much of the staple of drawing-room chat.

It would do no harm either for these ladies to have a general familiarity with the out-of-door pursuits of those to whom they are thus allied, even if that were gained by an occasional walk afield, instead of a shopping excursion.

A visit now and then to the stable and the farm-yard might save the fair explorer from such a

blunder as happened once to a metropolitan friend of mine of the same sex. Being in the country, and smitten deeply with rural tastes, it occurred to her one morning that it would be quite romantic to play milkmaid. So she took a pail and went forth, but not meeting with any great success in the operation, it was discovered that she had made a slight mistake in regard to the sex of the animal she waited upon.

But let the ladies of our agricultural homes make those homes centres of intelligence, culture and refinement; let them feel and show a just and generous pride in the calling to which they are thus allied, and a disposition and an ability to vindicate its true honor as compared with any other; let them give their rejoicing and sympathetic presence on such occasions as this; let the younger rank of these ladies place their delicate, soft hands for life as readily in the large, brown hand of the practical farmer as in the soft and whiter palm of a merchant's clerk or a professional aspirant.

The speaker said he could not look upon the farmer without regarding him as a heroic wrestler with nature. With him every season was a campaign, and every harvest a victory; and may God crown you all with a blessing, as you are already crowned with honors.

A sentiment in honor of the Judiciary was responded to by Judge Rockwell, of the Superior Court.

*For the New England Farmer.*

#### EXPERIMENTS IN CULTIVATING POTATOES.

MR. EDITOR:—I wish to give a few facts in my experience of several things that have shown themselves during the season, on a piece of land cultivated by myself and family. In the first place, I will give the lay of the land, as it may have something to do with some of the phenomena.

The general lay of the land descends to the east from 6 to 10 degrees, with a hill west, or a continual rise westward for 100 rods, where the eminence is more than 150 feet above the field, and it descends to the east more or less for nearly a half mile, when it begins to rise, and within a mile it rises several hundred feet above the field. The field is 25 rods long by 8 wide.

Potatoes planted the last days of May, on a mel-low soil, a part of which was planted with potatoes last year, and a part sowed to oats, on green-sward. Manured the present year with a small shovel full of compost in the hill, made of horse-manure, two parts, and one each of loam and meadow mud. A deep, moist, alluvial soil in the valleys, and inclining more to gravelly and stony on the eminences. Planted the north part with Peach-blossoms, and the south with Davis' Seed-lings; cut two pieces in a hill; hoed well the last days of June. They grew well, and all looked fine until the 31st day of August, when at 2 o'clock, P. M., we had a shower from the west, with some thunder and lightning at a distance; rained smart for nearly half an hour, the water very cold, but no hail that I discovered. At 6, P. M., as I was passing the piece, there was a strong smell of decaying vegetation met my olfactory nerves, and in a day or two the vines turned black, and in a week another strip was seen to begin to turn; the first

being in the Peach-blossoms and the latter Davis' Seedlings, and spreading each way to the walls, north and south, in the course of two or three weeks, while the top vines remained green until October 16, when they were killed by frost. The potatoes on the low land were nearly one-third affected with rot. In the Peach-blossoms, a very few, while among the Davis' Seedlings none were diseased. The best of the Peach-blossoms yielded a bushel on a square rod, containing 24 hills, or 160 bushels to the acre, while the poorest were less than 100 bushels to the acre.

The best of the Davis' Seedlings were a bushel on three-quarters of a rod, containing 18 hills, or about 210 bushels per acre, while the poorest yielded less than 150 per acre.

The land rose nearly 20 feet higher in the centre than at the valleys, while at the north and south ends it was from 5 to 10 feet higher.

One other thing I noticed. The land was old pasture, broken up in the fall of 1857, and had been plowed and harrowed several times; in most places it was free from grass, but as the land was natural to red top, in some hills it was found quite strongly rooted when I dug the potatoes, and where the grass was, whether in the whole or a part of the hill, nearly all of the large potatoes had begun to decay.

I have given a statement of things as I found them at various times, and hope that some of the wise ones among your numerous readers will give a scientific demonstration thereof for my benefit, and others interested in the raising of the potato crop.

HERVEY BARBER.

Warwick, Oct. 24, 1859.

*For the New England Farmer.*

#### IS FARMING PROFITABLE?

MR. EDITOR:—I have just read in the *N. E. Farmer* of Nov. 12, the article signed "T. J. Pinkham, Chelmsford," on the profits of farming, or rather on the *losses* of farming. I am surprised that any one living in the counties of Middlesex and Worcester, Mass., or Hillsborough, N. H., should write such an article, when the farmers in these counties are the most wealthy of any part of the population.

There are 40 to 50 farmers in the town of Hollis, N. H., worth from \$3,000 to \$15,000, or more, and I have known most of them from the time they took possession of their farms, either by purchase or from their fathers. I think at least two-thirds of them either owed, or had to pay out to heirs or support the old folks, to at least two-thirds of the value of their farms at the time they took possession of them.

In almost every case where a young man has bought a farm, and has been temperate and industrious, and had tolerable health, he has made money. Nor have these farmers been miserly or mean, either with themselves, their families or the public. They have most of them good, comfortable dwellings, well painted inside and out, for their families, good barns for their stock, and sheds, &c., for wood, carriages, grain, &c., most of which they have either built or repaired since they came into possession. They educate their children, and spend money for proper purposes as freely as any other class of citizens. If farming is such poor

business, how have these men supported their families, paid their debts, repaired their houses and barns, or built new ones, and lent money, taken stocks, &c.? Could they do it by raising corn at a loss of \$10 each acre, or calves at a loss of \$16 on each calf?

Let us look at his estimate below on the cost of raising an acre of corn, viz.:

ONE ACRE OF CORN.		DR.
May 10,	Two men, two yoke oxen and plow one day.	\$4.25
" 15,	One man, four oxen and cart one day hauling manure.	3.25
May 15,	Ten loads manure.	10.00
" 16,	One man one day, yoke oxen and harrow half day, spreading manure and harrowing.	1.75
May 17,	Man, horse and boy 1 day furrowing.	.75
" 18,	Man and boy one day planting.	\$1.50, seed 25.1.75
" 19,	To putting up line, &c.	.25
June 6,	Two men, horse and plow cultivating and hoeing.	2.50
June 6,	To replanting and asiling.	2.00
" 25,	To hoeing and cultivating.	2.50
July 10,	To pulling weeds.	.50
Sept. 10,	To two men cutting stalks and stooking do.	2.00
" 25,	To carting stalks to barn, &c.	.50
Oct. 12,	To harvesting.	2.00
" 13,	To husking and taking care of butts.	2.00
" 13,	To interest on land, capital and taxes.	3.00
" 13,	To fencing and rents of barn and corn-house.	3.00
Dec. 15,	To shelling and marketing corn.	5.00
		<b>\$47.00</b>
ACRE OF CORN.		CR.
Dec. 15,	By 30 bush. shelled corn sold.	\$30.00
" 15,	By 6 bush. ears soft corn sold.	3.00
" 15,	By stover and pumpkins.	5.00
		<b>\$38.00</b>
Net loss on crop.		<b>\$10.00</b>

Now, our land, (upland.) must be broken up, whether we raise corn or lay down immediately to grass.

Not over one-third of the cost of breaking up should be charged to the first crop. The manure, if spread, not over one-fourth should be charged to the corn.

Few replant or ash, and as to pulling weeds, you had better let them alone than pull them in a dry time. A boy will cut the stalks for half the price, and your men will husk it out in an evening, if good corn. Shelling the corn is much too high. I have had 50 bushels threshed out in a day by one man several times. Now let us see:

1 of the cost of first plowing to the first crop.	\$1.42
1 of the manure and hauling.	3.31
Harrowing, &c.	1.75
Furrowing, planting, seed and line.	2.75
First and second hoeing.	5.00
Cutting stalks and transplanting.	4.50
Husking corn.	1.00
Interest, &c.	3.00
Thrashing out corn.	1.00
	<b>\$22.73</b>

All this help has been called one dollar per day. Help hired by the month, for 8 months, does not average over 58 cents per day, and this help, besides doing the work set down in the above list, is expected to get up in the morning, make the fires, feed the hogs, milk the cows, feed what stock may be at the barn, and cut wood, or work in the garden the rest of the time till breakfast, and milk and do the other chores at night—well nigh enough to pay the board. But call it 75 cents per day—three-quarters of \$22.73 is \$17.05. Allowing his estimate of \$37.00 sold, the cost that should be charged to the corn is \$17.05. Profit, \$19.95.

I consider corn one of the best crops raised:

wheat, oats and grass follow it better than they do potatoes.

I asked how our farmers had contrived to pay for their farms, build, paint and blind their houses, have money to let, and stock in corporations? I should answer the question by the above estimate. If "T. J. P." can account for it in any other way, I should like to have him.

Hollis, Nov. 14, 1859.

ED. EMERSON.

REMARKS.—Thank you, Mr. Emerson, we have no doubt great good will come out of this discussion. Mr. Emerson's name will be recognized by many readers as that of a frequent correspondent to these columns,—but for the gratification of those who do not know him, we will say that he is quite largely engaged in farming, working with his own hands and directing his affairs in person. No one can justly charge him with being a fancy farmer, or of giving undue credence to books.

#### CONCORD FARMERS' CLUB.

The Annual Meeting of the Concord Farmers' Club took place on the evening of the 10th inst., when the following persons were elected as its officers for the ensuing year, viz.:

MINOT PRATT, President.

ABIEL H. WHEELER, Vice President.

JOSEPH REYNOLDS, Secretary.

ELIJAH WOOD, Treasurer.

The subjects prepared and adopted for the several evenings during the winter are as follows: Corn; Sheep Husbandry; Subjects for Premiums at Agricultural Exhibitions; Rotation of Crops; Preservation of Meats; Vegetable Food other than Hay; New Plants; Soiling Cows; Experimental Farming; Manures and their Application to Different Soils; Draining; Root Crops and their Comparative Value; Preparation of, and Marketing Produce; Best Breeds of Cows; Fruit Trees and their Culture; Market Fairs; Grass and Grass Lands; Culture of Flowers; Small Fruits; Articles of Food for the Family, and their Preparation; Forest Trees.

It required much care to select topics that had not already been under discussion, perhaps more than once, and to express them, so as to require a somewhat different turn of thought from what they had heretofore received. It was thought that some of the old subjects, such as the corn or hay crops, seeding, reclaiming or draining, might be presented in such a light as to give them a new interest and value.

The first meeting of the season was opened with a manifestly increased sense of the importance of the object of the association. If we can have access to their records, we shall find pleasure in laying an occasional account of their doings before the reader.

*For the New England Farmer.*

#### WARMING THE BARN AND COOKING THE FOOD.

MR. EDITOR:—While reading Mr. Flint's admirable work on Dairies and Milch Cows, the question arose in my mind, can New England farmers profitably adopt the custom of warming their stables, and steaming, or in any way cooking the food for their cattle? With the present style of barns, it seems to me an impossibility. With a properly constructed stable, and a well devised heating and ventilating apparatus, I think this object can be readily attained. I therefore propose to suggest a plan of heating and ventilating for the consideration of the readers of the *New England Farmer*.

In the outset, I wish to lay down certain conditions, which I regard as essential to cheap and effectual ventilation and heating.

1. No apartment can be properly heated and ventilated, into which the pure, warm air is admitted at the bottom, and has a ventilator at its top. With such an arrangement, the pure air being lighter just in proportion as it is warmer, rises to the top and passes directly out, carrying with it most of the heat, and leaving in the room the cold, impure air, save the trifle which mixed with the pure air in passing upwards.

2. The air within the room should be influenced as little as possible by external currents.

3. There should be a constant and uniform supply of pure warm air furnished, to take the place of what is withdrawn.

4. The warm and pure air should be agitated and mixed as little as possible with the impure cold air.

5. Either a heated flue, or some mechanical power, must be introduced to draw out the impure air.

6. The apparatus should be so simple as to work uniformly, and not get out of order.

A proper construction of the stable is of the first importance. Wherever it is practicable, it should be built on a side hill, and the whole space in the basement appropriated to the cattle, an apartment for cooking their food, one for dry muck, or other absorbents, and the root cellar. The walls, where built against the earth, if not laid in mortar, should be faithfully pointed, and have the earth well compacted on the outside. Where exposed to the weather, a small space of confined air should be left in the interior, and it would be well to have double windows. Over head, the room should be plastered or ceiled with jointed and matched boards, and the space between the joists filled with chaff or cut straw. It is evident that a stable constructed in this manner, and filled with a stock of cattle, would require but little artificial heat, and that could be readily supplied by the fire which cooked their food. In this apartment all the excrements of the cattle should be faithfully mixed with absorbents, and, at least once a day, carefully removed. A thrifty farmer would of course see that a proper receptacle was provided for them.

The cooking-room should be provided with a chimney two feet square on the outside. It should be built in the most substantial manner, smoothly plastered on the inner side, and rise above the highest part of the barn. In the interior of the

chimney, a stove pipe of stout sheet iron or cast iron should be carried up to a few inches above the top of the brick chimney, it being securely fastened to the brick work so as to be held firmly in the centre of the brick flue. The iron flue should have a close fitting accessible door, near the bottom, for the purpose of clearing out the soot, and a stove pipe inserted near the top of the room, and extending through the brick chimney, to receive the smoke pipe from the fire. The brick chimney, in addition to the hole for the smoke pipe, should have a large register to let off the heat, when not required in the stable, and the nearer the top of the room it is, the more efficient it will be; also, an opening at the very bottom, to receive the foul air from the stable. This last should be so placed as to afford access to the door in the iron pipe. The partition between the cooking-room and stable should be made with several good sized openings, both at the top and bottom, and the floor of the former should be raised so as to afford a free passage to the foul air of the stable, through the lower openings in the partition, and, thence, under the floor, to the opening near the bottom of the brick chimney. The space under the floor should be made light, so as to keep out all vermin, as well as currents of air from all sources except the stables. The openings at the bottom of the partition should be protected by wire screens, to exclude vermin, or any combustible material which might be drawn into them, and those at the top should have board shutters to shut off the heat when not needed in the stable.

To supply the stable with pure air, there should be a ventiduct running the whole length or width of the building, as most convenient, with an opening at each extremity. It would be well to make this ventiduct at least four times as large as the external openings, so as to lessen the current when a strong wind was blowing directly into it. It should be made rat-proof, and have the ends protected by wire screens. On the side of the ventiduct, an air chamber should be made extending under the fire. The air chamber should have an opening into the ventiduct large enough to ensure a full supply of pure air under all circumstances. With an apparatus on the principle of the common ventilating stove or furnace, with suitable cooking utensils attached, a large amount of air might be warmed while preparing the food for the cattle. This, together with what could be obtained by carrying the stove pipe around the top of the room before entering the chimney, would heat the air to a high degree, and it having no means of escape but by the apertures at the top of the partition, it must flow into the stable and diffuse itself over the top of that apartment. While this is going on, the hot air and gases escaping from the fire, through the iron flue in the brick chimney, would give a strong upward movement to the surrounding air, and a constant flow would take place from the bottom of the stable, through the space under the floor of the cooking-room.

I leave the arrangement of the cooking apparatus to the wants and the ingenuity of the farmer, or the skill of the stove-maker, only stipulating that every thing around the fire, and air-chamber below it, should be fire-proof, to guard against danger from reflex currents of hot air when doors or windows are opened on the windward side of the stable. I would moreover suggest that it

might be well to connect the iron flue with the moist earth, by one or more iron rods to carry off any electricity that might happen to travel by that route.

It is evident that the plan I have suggested has no intricate system of valves and dampers to be regulated by the attendants on the cattle. The stove-maker would of course construct his part of the apparatus with the means of regulating the fire.

The question now comes up, will it pay? I have no hesitation in saying, that it will much more than pay, unless the advantages of warming the stable and cooking the food for cattle have been much overrated. In the first place, there will be a saving of food and increase of milk, a greater tendency to fatten, and a better condition of the whole stock in the spring. Besides these, a great many other things may be profitably done with a warm room of this kind. In a pen in the corner, the February and March pigs may be dropped with safety, and thus be ready for the best market. The hens may have their allotment of space, and set at defiance the coldest storms, while they fill the family or market basket. The early potatoes may be started in a part of the cooking-room, and so of the cabbage plants, tomatoes, &c.

The cost of fitting up a stable of this kind, 52 by 40 feet, I think, could not be more than \$150 to \$200 over that of a common barn cellar of the same size. This extra outlay could easily be saved on the rest of the building. A barn of the above dimensions would accommodate about as much stock, and afford as much storage room, as one of the common barns 75 by 38, with a floor way through the whole length. From its greater compactness, there would be much less outside to finish, and from the upper part being only required for storage, the finish might be much cheaper in kind.

H. LINCOLN.

Lancaster, Mass., Nov., 1859.

*For the New England Farmer.*

#### "HOW TO RECKON THE COST OF FARM PRODUCTS."

In a late number you repeat the question propounded by the Massachusetts Agricultural Society in 1860, "How many days' labor are needed to cultivate and harvest an acre of corn," and state that the average of the answer was 17½ days, and say that with our improved implements, the time should be two or three days less now. In this opinion I think you are correct. But friend Pinkham, in his remarks upon the subject at the head of this article, makes out that 24 days' labor of a man, and 1½ days of a boy, besides 4½ days of a yoke of oxen, and some hours of a horse, are required. I wonder if he has followed carefully his own directions, and kept an accurate account of the labor expended on an acre of corn? He writes like a man of intelligence. But his account looks to me as though it was made up by estimation, rather than by the record. In either case, I would advise him to quit farming immediately. For, in the first place, farming must be to him a very discouraging business. He goes to his labor, day by day, under the conviction that he is losing money, and he cannot labor cheerfully and willingly; and secondly, by imparting his feelings

to others, he must discourage them; and lastly, his own record proves him to be a very poor farmer. The man who spends 24 days' labor on an acre of corn, and gets but thirty bushels at that, should not attempt to raise corn, neither should the man who puts but 10 loads of manure on an acre. It costs no more labor, except for hauling and spreading, to put on 20 loads, than 10, and with 20 loads on an acre fit for corn, well cultivated, he would obtain 50 bushels, and 200 bushels of turnips, worth 10 cents a bushel, making the result as follows:

Corn, 50 bushels, worth.....	\$50
Stover.....	10
Turnips.....	20—\$80

To the debtor side add \$10 for manure, making it \$57. Then deduct 6 days' labor and half the value of the manure, and we have \$41. Now deduct this from the product of the acre, and we have \$39 profit, and observe that we have allowed the man \$1 per day for his labor. If, then, a farmer can get a dollar a day for his 18 days' labor, and a dollar a day for his oxen, and \$39 besides, I ask if it is not a good business? What right has any farmer who can do this, to croak over farming as poor business? Or to say that the farmers are wearing out their lives and their farms, and coming to want?

Many farmers are doing the very thing I have stated, only, they get 60 bushels of corn and 300 bushels of turnips.

Friend Pinkham must turn over a new leaf in his account book, and look at matters with a more cheerful spirit. Look around upon your neighbors, who have pursued farming with industry and skill for 20 or 30 years. Have not their farms improved? Have they not better stock, and more of it, better carriages and tools, better orchards, better buildings, better furniture, better clothing, more books and papers? Do they not educate their children better, and are they not more intelligent than they were when they began to be farmers? How many farmers do you know who began life poor, or in debt, and who have paid off their debts, and are now the owners of good farms, and occupy a respectable standing in society? How many farmers within the circle of your observation have failed, in proportion to the number of merchants who have gone through the same operation?

I know very well, that the farmer's life is not an idle life. He must improve all his time, must be up with the lark, and make his arrangements with care and skill. He must shell his corn in the evening, or on rainy days, when he cannot work out of doors. He must do everything in its appropriate time. He must learn to kill two birds with one stone. For instance, he wants to prepare a piece of land to yield a good crop of grass. He plows it thoroughly, puts on 25 loads of manure to the acre, and thus gets 50 bushels of corn and beans, the land in a good state to be seeded down, with a dressing of ashes or plaster, or Superphosphate, to wheat and grass. He thus gets a good crop of corn, 24 bushels of wheat, worth \$48, and the straw, worth \$12 more, and three or four good crops of grass, before it needs plowing up again. He must look ahead, and make his arrangements, not for one year only, but for a series of years. He will occasionally meet with losses. His crops

will fail, from frost, or drouth, or blight. But he will not have his eggs all in one basket, and some of his crops will be good, whatever the season may be. This season, the corn and apple crops are small. But the small grains, and potatoes and hay, have been good, and the farmers have a good supply, and are happy and contented, and are improving this fine November weather in making arrangements to try again, and why should they not? Who does not make losses and meet with discouragements in his business, be it what it may? The mechanic sometimes cannot get work, or fails to get his pay when his work is done. How is it with the shoe business now, to which Mr. P. refers? I understand that both manufacturers and laborers are working for small profit. The farmer has as few ups and downs as those who are engaged in any other business whatever. I think there has been no time within the last 5 years, when corn would not bring \$1 a bushel, or butter 25 cents, and certainly hay and potatoes are sufficiently high. Brother farmers, go on and make ample preparations for a wider breadth of crops and deeper and more thorough tillage next year, with the full assurance that you are engaged in the best, the safest, the most healthful and the most moral business of any class of men in the community.

Concord, Nov. 15, 1850.

J. R.

*For the New England Farmer*

#### THE NEW PLOW.

MESSRS. EDITORS:—Having heard that a new implement of the plow kind was to be tried upon the intervale at Charlestown, N. H., four miles from my residence, on the 11th inst., I availed myself of the opportunity to see it tested. I found the plow in full operation, my old friend, Mr. Holbrook, of Brattleboro', guiding its course, though without much effort, for the plow, when gaged properly, would almost keep its place in the furrow without guiding. I saw several different sized mould-boards and land-sides, with a skim share of cast iron and steel, some of each kind of metal, lying about upon the grass near the scene of operations.

This was rather a novelty to see so many plows in one. The operation was watched closely by several of the best farmers of the neighborhood; and it was really a new thing under the sun to see how rapidly one plow could be changed to another, all, and each one, doing its appropriate work in the best possible manner.

There was the deep tiller, without the forward or skim share, going to the depth of twelve inches, with a proportional width of furrow slice, perfectly inverted, flat furrow, and so along up by a change of mould-board, to eight, six and five inches, the draft, of course, lessening as the change was made to less depth. The forward share, or skim, was put on with a short land-side and mould-board, and the implement again showed itself to be very earthly-minded, for it went down to the depth of twelve or fourteen inches, throwing the earth up four to six inches above the level of the inverted flat furrow sod which had just been turned, leaving it in the finest condition for a pulverization with the harrow or cultivator. This was the kind of plowing that struck my fancy as being the very best of the best. I tried holding the plow,

as did several others of the lookers-on; it was remarked with what ease it held, particularly when operating in this double form.

I learned from Mr. H., who I think was instrumental in getting up the models or designs for the various combinations of this plow, that there were thirteen different changes, by merely a shift of mould-boards, and in some of them a shift of land-side; designed to do all kinds of plowing in the most thorough manner, with the same standard and wood-work, from bog-meadow, through all the grades of surface and soil, down to the smooth and level intervale. The land where this trial was made, had apparently never been plowed more than five inches deep, and, though intervale, below this shallow depth it was tenacious and hard, and of course the plow could not show so easy a draft as on similar soils that had been broken and stirred to a greater depth.

The last work of this plow was on stubble land, single share, short mould-board and land-side, with a single pair of horses. It worked admirably, leaving a fine tilth, so nicely rolled together and mixed that the furrows could not be distinguished or counted, having the appearance of a finely harrowed or cultivated surface. From the peculiar manner of the curve of mould-board, and roll of the lifted soil in this stubble plowing, with the height of standard, I have no doubt of its turning under without clogging almost any amount of green crop, mould, or coarse, strawy manure.

I doubt whether there has ever been presented to the farmer any one improved implement better adapted to his wants, as to economy, convenience and thoroughness of work, than this universal plow. It is a dozen plows in one. My acquaintance with it is yet limited; I intend to extend it, for I regard it as the plow of plows. J. W. C.

*Springfield, Vt., Nov. 14, 1859.*

#### EXTRACTS AND REPLIES.

##### LICE ON APPLE TREES.

Please inform me what will kill lice on apple trees?

C. ROBINSON.

*Weston, Mass.*

REMARKS.—Keep them in a vigorous, but not too rapid, growth, by cultivating the ground where they are growing; prune them properly, late in June, if they need it, and wash them annually with common soft soap diluted with water until it is about the thickness of cream. Lice don't like a perfectly healthy tree half as well as they do one stunted and struggling for existence. There may be other ways to kill lice on trees, but we consider a perfectly healthy growth better than all drugs.

##### MEASUREMENT OF HAY.

Can you, or some of your readers, inform me how many square feet of English hay, in a mow, will make one ton of 2000 pounds by weight? Also, how much meadow hay in feet to a ton?

*Billerica, Mass., Nov., 1859.* A READER.

REMARKS.—We copied an article into the *Farmer* in 1857, from the *New Jersey Farmer*, which

stated that "the top of a mow, say about one-third, would require 800 cubic feet to the ton; the middle 700 feet, and the bottom 600 feet." "A Subscriber" in Reading, Vt., states that at the bottom of a mow 400 feet will make a ton, and that a whole barn full weighed out, averaged a little less than 500 feet to the ton. Mr. M. J. Perkins, another of our correspondents, states that farmers in his region estimate that from four to five hundred cubic feet to the ton, according to the position in which it lies, is sufficient. Meadow hay is usually lighter, will not pack so closely, and more feet must be allowed for it.

#### THREE ACRES OF LAND TO SUPPORT A SMALL FAMILY!

A clergyman, who is compelled to abandon his profession by ill health, is desirous to know how he may cultivate three acres of rich land, so as to support a small family? Information will be thankfully received.

*West Springfield, 1859.*

REMARKS.—Here is an interesting problem,—who will solve it for our unfortunate friend? He who can do it, and will do it, will confer a substantial blessing upon mankind generally, as well as to a "clergyman in ill health." But the question has its difficulties, because there are so many contingent circumstances surrounding it, such as locality, the nature of the soil, markets, &c. &c. We once knew a person whose sole business was upon less than one acre of land, and he hired a man to work two or three months of each year with him, upon the same spot, and we suppose he supported his family well. But this land was located within the limits of a city, and a considerable portion of the sales were green-house flowers, though the whole grounds were crowded with various fruits.

While we hardly dare to venture any suggestions upon this question, we hope some of our attentive and able correspondents—and we have many such—will. We will suggest, however, that *three acres* of land is a pretty large tract to take care of—there are a great many productive *farms* in the world, not half so large. It will require a great deal of hard and persistent labor to tend such a farm,—and to make it profitable, its possessor should have an ample capital in a stern will, in strong and well inured muscles, and in well versed horticultural skill. He must also be a good deal of a merchant, as well as gardener and laborer, and take advantage of the markets, and produce his spinach and peas, his strawberries and asparagus, his cauliflower, cabbages and celery, so that they shall be in the market at the instant the fashionable appetite demands them!

It will be no child's play to manage three acres so that its profits shall keep back the wolf from

the door! It *can* be done, but only through unremitting skill and toil. "Livelihoods are hard to get," but they are as easily acquired in farming or gardening, as in most other callings, and farming and gardening demand, as well as other callings, skill and capital to ensure successful results. The idea, so widely extended, is entirely erroneous, that any body can at once be a farmer or a gardener. They may just about as appropriately be a lawyer or a minister. Any man can plow; so any man can preach or give advice. We sincerely hope some gentleman of genius and experience will show our correspondent "how he may cultivate three acres of rich land so as to support a small family."

#### THE SEASON—CROPS—CORN LAND—STOCK AND HAY.

The past summer has been a very uncommon one. There has been a killing frost every month of the past season. It has been dry as well as cold. After the equinoctial storm of September 15th, there was a great change in the weather. It has been remarked, "if it clears off warm after the equinoctial storm, every after storm will clear off warm." And such appears to have been the case the past fall. Although we have had many frosty nights, and quite a number of snow squalls, it has been rather a pleasant fall thus far. The ground is still open, and the pastures are quite as green as they were some of the time last summer. Water is very low yet; but few springs or wells have started, that were dry. We have had but one good shower of rain for five weeks.

The lesson of the past season teaches us, that, as far as raising corn is concerned, the high, hilly land is best. Most corn on such land about here has ripened, while that on low lands has been a failure. Corn that was planted deep, stood the spring frosts better than shallow planting.

There is quite a panic about here just now, on account of the lowness of stock, and a supposed scarcity of hay; the latter has sold at auction as high as fifteen dollars per ton; about double the usual price. Auctions are getting to be rather plenty. Many are selling their farms; many more are selling stock and hay, and others are selling stock, and keeping their hay for a better price. There is, in reality, no scarcity of hay; but stock is rather cheap and poor. City folks must expect poor beef this winter.

HERMGT.

*Cedar Valley Place, Newbury, Vt.*

#### SPONTANEOUS COMBUSTION IN HAY.

Can you give me any information concerning the combustibility of salt hay stored in a barn?

Two barns of ours have been burned, one last year, and one this year, each of which had several tons of this kind of hay, and nothing else stored in it. My own opinion now is, that each of these fires originated in spontaneous combustion; the hay in each case had been stored there two or three months previous to the fire. It is well known that English hay stored in a green state, will thus catch fire, but salt hay, even if put in green, I have always before considered safe in this respect. Several of my neighbors wish for a little more light

upon this subject. I hope they may have a more satisfactory *light* than I have had. Information of this kind, I see, is frequently elicited by like publications in your valuable paper.

OMEGA.

*Roxbury, Mass., Nov. 15, 1859.*

REMARKS.—We are sorry not to be able to shed profitable *light* upon the question propounded by our correspondent. No doubt some one can, and we hope will, give it attention.

#### WISE MEN OF THE EAST.

I have noticed, of late, several communications on important points of culture, under the signature of experienced cultivators, in this vicinity. I am glad to see these; but at the same time, cannot but think, that they would do well to remember, that others may know something as well as themselves. For instance, I believe the late Dr. Harris, of Cambridge, knew something about "insects injurious to vegetation." But when I see his views controverted and denounced, by young men whose beards are not yet fully grown, except a little on the upper lip, perhaps, I think such young ones would do well to keep in the shade a spell longer.

ESSEX.

*Nov. 20, 1859.*

#### RECLAIMED MEADOWS.

I have known many specimens of these; but the question often recurs, how long will they stay reclaimed? My answer is, just so long as the cold, stagnant waters are kept entirely away from the fibrous roots of the vegetable growth. When a damper is thrown upon these fibres, by accumulated waters, then the perfect reclamation of the meadows gives way. As well might we expect a reclaimed drunkard to stay reclaimed by taking a small "horn" each day, as a reclaimed meadow to produce sweet products, without more than ordinary care applied. What is bred in the bone, cannot be beaten from the flesh.

P.

*Nov. 24, 1859.*

#### AGRICULTURE IN CHINA.

Every substance derived from plants and animals is carefully collected by the Chinese, and converted into manure. Oil cakes, horn and bones are highly valued; and so is soot, and more especially ashes. To give some notions of the value set by them on human offal, it will be sufficient to mention that the barbers most carefully collect and sell, as an article of trade, the somewhat considerable amount of hair of the beards and heads of the hundreds of millions of customers, whom they daily shave. The Chinese know the action of gypsum and lime; and it often happens that they renew the plastering of the kitchens, for the purpose of making use of the old matter for manure.

No Chinese farmer ever sows a seed of corn before it has been soaked in liquid manure diluted with water, and has begun to germinate; and experience has taught him, (so he asserts,) that this operation not only tends to promote the growth and development of the plant, but also to protect the seed from the insects hidden in the ground.

During the summer months, all kinds of vegetable refuse are mixed with turf, straw, grass, peat.



weeds and earth, collected into heaps, and when quite dry, set on fire; after several days of slow combustion the entire mass is converted into a kind of black earth. This compost is only employed for the manuring of seeds. When seed time arrives, one man makes holes in the ground; another follows with the seed, which he places in the holes; and a third adds the black earth. The young seed, planted in this manner, grows with such extraordinary vigor that it is thereby enabled to push its rootlets through the hard, solid soil, and to collect its mineral constituents.

The Chinese farmer sows his wheat, after the grains have been soaked in liquid manure, quite close, in seed beds, and afterwards transplants it. Occasionally, also, the soaked grains are immediately sown in the field properly prepared for their reception, at an interval of four inches from each other. The time of transplanting is towards the month of December. In March the seed sends up from seven to nine stalks with ears, but the straw is shorter than with us. I have been told that wheat yields 120 fold more, which amply repays the care and labor bestowed upon it.

It is quite true that what suits one people may not on that account suit all countries and all nations; but one great and incontrovertible truth may, at all events, be learned from Chinese agriculture, viz., that the fields of the Chinese cultivator have preserved their fertility unimpaired and in continued vigor ever since the days of Abraham, and of the building of the first pyramid in Egypt.\* This result, we also learn, has been attained solely and simply by the restitution to the soil of the mineral constituents removed in the produce; or what amounts to the same thing, that this has been effected by the aid of a manure, of which the greater portion is lost to the land in the system of European (and American?) cultivation. —*Liebig's Modern Agriculture.*

\* Vessels of Chinese porcelain are found in the pyramids, of the same shape, and with the same characters of writing on them, as on modern China at the present day.

*For the New England Farmer.*

#### THE HYDRAULIC RAM.

I notice in the November number of the *Monthly Farmer* a call for information concerning the above machine. I have one in operation on my farm, which is situated in the extreme southerly part of this town, adjoining the Great Bay of the Piscataqua river. It has been in operation about twenty months, and works far beyond my expectations, the water being driven up a rise of about eighty feet, and thirty-five rods distance. It furnishes an ample supply of water for all purposes, of both house and barn. The fountain, or spring, affords about five gallons of water per minute; the drive pipe is of iron gas pipe, one inch calibre, and forty-five feet in length; the conducting pipe from machine to house is lead pipe,  $\frac{3}{4}$  inch calibre, and thirty-five rods in length, laid three feet beneath the surface of the ground, and from a reservoir in the house the water is conducted under ground in a  $\frac{3}{4}$  inch lead pipe five rods to the barnyard. The fall from the spring to the machine is eight feet six inches, and the rise from the machine to the house is about eighty feet, and the distance thirty-five rods. The quantity of

water received at the house can be varied by means of an adjuster attached to the machine, but in this case there is ten times the quantity of water driven up that is needed. The ram is from the manufactory of W. B. Douglas, Middletown, Conn., and size, No. 3; cost, six dollars.

The farm has generally been occupied by a tenant, but during the few months of very cold weather last winter, some days of which were most severe freezing weather, no one occupied the house, and there was no fire in it for some time, yet the stream into the reservoir, and the reservoir itself, were not in the least affected by frost, and the water flowed the same as it did in the month of July, and of the same temperature. The expense of labor and material in the whole operation did not exceed seventy-five dollars. I procured a diagram from Mr. Douglas, and directed the whole business in person, without the least inconvenience or mistake. Any further and more particular information will be given with pleasure, if desired.

*Durham, N. H., Nov., 1859. V. SMITH, JR.*

#### THE CANADA THISTLE.



This is a very troublesome production. It is said to have been introduced originally as an ornamental appendage to the flower garden. The root is perennial, creeping, and remarkably tenacious of life. It is also wonderfully prolific, propagating itself from the filaments of the roots, as well as from the seed.

When lands have become foul with this plant, the best plan, probably, that can be adopted for



its speedy and thorough eradication, is to plow them in narrow furrows—say six inches in width, with a sharp plow. In this way every root will be cut off or detached, and if the soil be immediately and thoroughly harrowed and laid down to grass, the thistles will soon disappear. When thistles spring up in vacant lots, by the road-side, and in fence corners about the premises, mowing at the period of inflorescence, or when most of the plants are in full bloom, for several seasons in succession, will be quite likely to destroy them.

When the thistle obtains footing in pasture lands, and when plowing to effect their eradication is impracticable, the scythe must be put in use as suggested above, and as a general thing, may be employed with good success if faithfully persevered in. If, after mowing the tops—which, if possible, should be done when the thistle is in full bloom—salt be sprinkled upon the stumps, and the enclosure left free for sheep, the labor of eradication will be more speedy and complete. This is a much more economical method than extracting by hand, which is tedious, and not always a successful process. On clayey loam, the thistle flourishes with greater vigor, and appears to be much more tenacious of life, than on soils of an arenaceous, or sandy texture. Although it takes root as readily on the latter as on the former, and attains, ordinarily, a full development, yet it yields more readily to cleansing operations, and appears to be in a great measure destitute of that vigorous hardihood of constitution, which characterizes it when growing on soils that are more clayey.

The beautiful illustration of the thistle which we present above, is copied by permission from "*Darlington's Weeds and Useful Plants*," one of the pleasantest books in our knowledge. Published by Saxton, Barker & Co., N. Y.

*For the New England Farmer.*

#### AN EXAMPLE IN UNDERDRAINING.

MR. BROWN:—In a brief note of Nov. 16, published in your paper of to-day, I spoke of my observations on processes of underdraining, that I had seen the present season, on farms in this vicinity. The minutes I then had in mind have since passed into other hands. But as it may interest some of your many readers to know what is doing in this important branch of husbandry, I will endeavor to sketch briefly what I then contemplated.

The most extensive experiment I have seen was on the Pickman farm, (so called,) in South Salem. It extended over more than five acres of flat, swampy land, situated between the Mansion House and the Forest River road. Various attempts have been made, in years past, to bring this land into condition for culture, by throwing it into beds of 30 or 40 feet in width, and excavating a main ditch through the centre—all of which very imperfectly relieved it. The present proprietor determined to

try what could be done by *tile drains*; accordingly he procured an accurate survey and level of the field, and employed experts to lay his drains, chiefly of *three-inch tile*, at distances varying from twenty to forty feet. This has been thoroughly done over the whole field. It was so early done, that the field was planted with the various kinds of vegetables cultivated in this vicinity. The increase of crop, over anything before produced on the same land, has fully paid the expense of the draining process in all its parts, leaving the land worth, at least, *three hundred dollars* per acre—being more than double what it would have before been estimated at. A specific account of the entire operation will soon appear in the *Essex Transactions*, now in press, and for which the first premium on underdraining was awarded by the trustees.

Other experiments were examined, of drains made of stones gathered from the land, but as these are not worthy to be named, where tile can be obtained, I forbear to speak of them in detail.

Our whole community are under great obligations to your brother French, for the very valuable instruction he has condensed on "*Farm Drainage*." If I do not mistake, he has pointed out the mode of increasing the value of Massachusetts farms more than any other single operation that has been named. I would give more for his underdraining process, than for all the "*specific fertilizers*" that were ever thought of.

J. W. P.

*South Danvers, Nov. 26, 1859.*

*For the New England Farmer.*

#### EMPLOYMENT FOR WINTER EVENINGS AND STORMY DAYS.

##### FARMERS' OPPORTUNITY FOR MENTAL IMPROVEMENT.

With the majority of laboring farmers there is but little time left for intellectual improvement, after the weekly papers are read, during a large portion of the year, perhaps from April to October or November; but the long evenings of the remaining part of the year, and the stormy and severely cold days of Winter, when out-door labor is impossible or exceedingly unpleasant, afford opportunities for mental culture to every farmer, that should not be neglected. The value of these opportunities, if well improved, can hardly be over-estimated; yet, I fear their utility is poorly appreciated by many of our farmers. They are too often whiled away listlessly, resulting in no good, if not in positive evil, from habits acquired by idleness. I wish, simply, to remind those of my brother farmers who may need it, of the importance of these golden moments of leisure, and of what may be gained by a proper use of them. To young farmers, and to farmers' sons, would I especially direct the few words I have to say.

Seneca has remarked: "As the soil, however rich it may be, cannot be productive without culture, so the mind, without cultivation, can never produce good fruit." And if the soil will not produce good returns without some sort of cultivation, upon what known principle can we expect that the mind will come into that state of improvement that will enable us to act intelligently in all the matters of our every-day business, without some kind of cultivation, without effort on our part to that end? While we labor in cultivating the soil the greater part of the year, that we may reap

abundant harvests, during which time we necessarily find but a limited amount of time for study and reading, though excellent opportunities for reflecting upon what we may have already learned, and for putting the same to practical uses, why should we not eagerly seek, during the comparative leisure of the remainder of the year, for opportunities to improve the *mind*, the guide and director of all our operations?

*Progress* now seems to be the order of the day, in everything. We live in an age of inventions; in the age of steam and electricity; in an age when every one must be up and *stirring*, to keep up with his generation; and finally in an age when great improvements are made in every department of the arts, in a single generation. Improvements are made, and great improvements are to be made, in Agriculture; and the farmer, to keep up with his time, must keep thinking, as well as stirring. Agriculture is a vast subject, to which nearly all the Sciences minister. It is not merely to plow, and plant, and hoe, as our fathers planted, and plowed, and hoed, and to gather what chances to grow from such a course. Our lands in New England, by exhausting methods of culture, are becoming poorer, the virgin soils, in a great many instances, have been cropt to excess, and it is our business, then, to study methods whereby we may not make them hold their present condition merely, but improve them. To this end I would counsel the study of standard agricultural books, in these spare moments; take and *read*, perhaps, another agricultural newspaper during these months, and think, and devise experiments to be put into execution the ensuing summer; not to any ruinous extent, however, should they prove of no economical value, but moderately, and *perseveringly*, and so add your mite to the general cause. Agricultural reports of States and counties are of great interest and importance, and should not be omitted in agricultural reading. I need not remind you of your duties and *privileges* in the "Farmers' Clubs."

Several of the natural sciences are so interwoven with agriculture, as geology, botany, and chemistry, and perhaps I might add meteorology and mineralogy, that some knowledge of them is of great importance to every agriculturist; and this knowledge is more easily acquired than is imagined by many. It is not above the capacity of any; and every farmer's son who has improved the opportunities for a good, common-school education, should not rest satisfied till he has devoted the leisure he may find in one winter at least, to the careful perusal and study of works on one, or more, of these sciences, which, in all probability, must create a thirst for higher attainments. Some knowledge of these sciences is quite necessary to read understandingly some of our agricultural books and reports; and ten dollars cannot be better expended yearly, by the farmer, than in the purchase of agricultural books, and papers, and scientific text-books. Take botany, for instance, the present winter, and make that a speciality, procure "Wood's Class-book of Botany," or some of Prof. Gray's botanical works, and in your leisure, master as many of its principles and terms as you can; then as spring opens seize the first flowers and apply them; in the few spare moments that you can find in summer, make a collection of plants for a *herbarium*, and my word for it, if

your nature is in any wise like that of the mass of people, the pleasures you will derive from the science will amply repay you for all the hours of patient study, and serve as an incitement to further exertion. But do not be too hasty in your anticipations; if in two or three years, with the time you would naturally get, you can seize upon any wild flower of the field, and readily analyze the same, you have accomplished not a little.

And in geology, also, careful reading, from time to time, will put you in possession of much valuable information, and be a source of great profit and pleasure to you. And so with chemistry; time and *perseverance* will put you on easy terms with its elements and technicalities. Much time, however, will be required to accomplish all this, and a good deal of perseverance. But the advice I have given I know to be wholly practicable; and the attainments I have mentioned I know to be within the reach of almost any farmer, young or middle aged, who *wills* to possess them; and, in time, even much more than this may be accomplished.

And just here let me say, do not spend too much time over a certain New York "story paper," or similar publications—much worse than wasting time—when Nature is ready to reveal to her votaries truths so much stranger than fiction, and productive of such high and noble pleasures, and which may be rendered of much practical benefit.

History, biography, books of travels, and other departments of literature, as well as the topics of the day, should receive a share of the farmer's attention in this season of leisure. In our farming population there are not a few noble minds—minds that can appreciate whatever is beautiful that surrounds them, and are not insensible to the poetic charms of nature, that they come into contact with in their daily avocations; and I would say, every farmer's library should contain the writings of several of our best poets, and let those volumes, too, be well read.

Indeed, let not these long evenings go unimproved; they are the seed time of the mind, to New England farmers; and around their glowing hearths let refinement and intellectual culture find a place, and receive encouragement, as well as in the mansions of the anxious merchant and manufacturer. Let farmers' sons and daughters be educated, at academies and other public institutions of learning, if not too inconsistent with the farmer's circumstances, but at all events, let not the home advantages go unimproved. J. A. A.

Springfield, Mass., Nov. 11, 1859.

#### FARMERS' CLUBS.

The officers and members of Farmers' Clubs in this State, should be aware that the Commonwealth, by an act of 1859, proposes to assist, to some extent, such clubs already established, and to encourage the establishment of them where they do not yet exist. To avail themselves of this assistance, immediate official notice should be given to the Secretary of the State Board of Agriculture, in case of clubs now in operation, furnishing him *with a copy of their Constitution*, the number of members and times of meeting. In case there are individuals in any town, who are dis-

posed to form such a club, notice of the same should be sent to the Secretary of the Board, with a request, if there is any desire for it, to have the aid of some person familiar with the modes of establishing such organizations. Such a person will then be furnished by the Board, and his expenses paid from the appropriation referred to in the Act mentioned above.

#### EXTRACTS AND REPLIES.

##### USE OF PINE SAW-DUST.

I wish to know if pine saw-dust is of any use for bedding cattle at this time of the year? Is it any damage to manure thrown from the stable daily? Can it be composted to advantage? If so, how? Farmers here do not make any use of it; many say it is poor; some say, worse than nothing. It seems to me it is worth something.

North Orange, Mass., 1859. J. A. FRENCH.

REMARKS.—Where pine saw-dust can be readily obtained, we have no doubt but that it may be profitably used as an absorbent on manure heaps. We do not know that its precise value has been ascertained, and cannot, therefore, suggest how far it will do to team it in order to use it profitably. If we could procure it by hauling it one mile, we should not hesitate to use it freely.

##### PUMPKINS FOR COWS.

I will give you my experience in feeding cows with pumpkins. First, I fed my cows one week with one large or two small pumpkins to each cow twice a day. Their milk decreased two or three quarts to each cow a day, from what they gave the first week previous.

I then fed them one week with the same quantity of pumpkins as before, and took out the seeds. They increased in a greater proportion of milk than they decreased the week previous.

I then fed them alternately, three or four weeks, and they varied in their milk very much as the first weeks.

A. CLARY.

Hartford County, Conn., 1859.

##### CHARCOAL—CORN FODDER.

MR. EDITOR:—The first question asked in all business pursuits in these days is, Will it pay? If once decided in the affirmative, then go ahead, and do it with a will; for in farm work, like all other work, what is worth doing at all, is worth doing well. Will it pay to haul pine charcoal, the burning of a large lot of pine lumber, four miles, to be used on the farm as a fertilizer? If so, in what manner can it be most advantageously applied? Can it be used in a compost with good swamp muck?

I have seen several articles in the *Farmer* in regard to harvesting corn. Some are for topping it, others for cutting it up by the ground. I have some years topped it, and other years cut it by the ground. This year I have done both ways, and can see no perceptible difference in the filling or shrinking of either; but I think the fodder on that cut by the ground worth more than double the same quantity left to stand and bleach. Oth-

ers may do as experience teaches them best; but I think that no farmer, who gets his living by the sweat of his brow, can afford to lose so large a quantity of good feed.

J. K. BURLINGAME.

North Providence, R. I., Nov. 17, 1859.

REMARKS.—Charcoal dust, usually found at the bottom of, and about coal pits, is valuable as an absorbent. A portion of it scattered over the manure heap twice or three times a week during the winter, would keep the barn sweet, and save valuable fertilizing agents that would otherwise float or flow away. Such dust is richly worth carting four miles.

##### IS DRAINING AN UNSETTLED THEORY?

Your somewhat witty correspondent in Winchester, "S. F.," concludes his strictures upon drainage by saying that the "subject of drainage" is, in his opinion, among the unsettled theories of the age. Now if S. F. will consult the Report of the Commissioners of Patents for 1858, Agriculture, under Improvement of Land, page 273, he will find a detailed account well worth reading.

Harvard, Mass., 1859.

C. T. SAVAGE.

##### THE POOR MAN'S CAKES.

I take buttermilk, add a little saleratus and salt, stir in Indian meal, and a small proportion of wheat flour, so as to make it rather thick. I then fry them in fat, rather hot, and after making a sauce of cider and molasses, pass them over to my family, who eat them with a very good relish.

Suffield, Conn., 1859.

MRS. BEEBE.

##### A LARGE FIG.

Mr. Daniel Howard, of West Bridgewater, fatted a spring pig which he killed on Monday, Nov. 28th, it then being eight months and twenty-seven days old, weighing, when dressed off, 420 pounds, beside sixteen pounds of fat taken from the caul!

##### THE COUNTRY CHILD.

Child of the country! free as air  
Art thou, and as the sunshine fair;  
Born like the lily, where the dew  
Lies odorous when the day is new;  
Fed 'mid the May flowers like the bee,  
Nursed to sweet music on the knee,  
Lulled on the breast to that sweet tune  
Which winds make 'mong the trees of June;  
I sing of thee;—'tis sweet to sing  
Of such a fair and gladsome thing.

AMERICAN STOCK JOURNAL.—This popular journal is devoted to the *Improvement of our Domestic Animals* throughout the United States. It is printed on large, clear type, and fine, white paper, and filled with articles valuable to those who are engaged in rearing stock, or for those who desire to know more in regard to the management of stock. D. C. LINSLEY, is the Editor and Proprietor; Dr. DADD, of Boston, attending to the Veterinary Department.

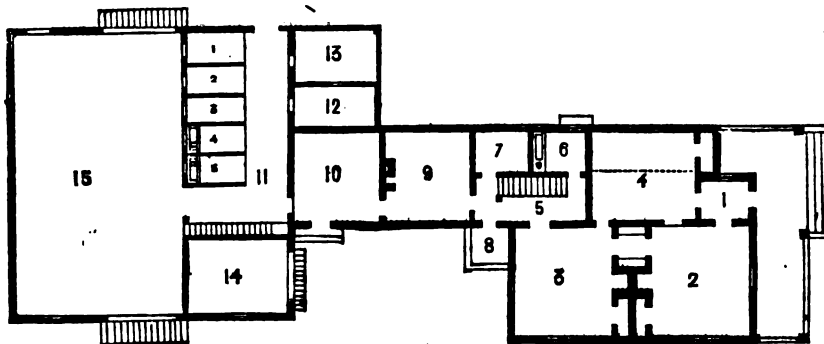


## DESIGN FOR A SMALL FARM-HOUSE AND BARN.

We take great pleasure in presenting the readers of the *Farmer* with another of the just and beautiful designs of our accomplished artist, Mr. G. E. HARNEY. We have had it executed especially for these columns, and cannot doubt that its appreciation by our readers will amply compensate us for the considerable sum which it has cost.

What can be more truthful and attractive than this picture! How delightfully everything is arranged. How easy of access, how unpretending, and yet how many of the wants of a home, those little things that go so far to make up the substantial comforts of life, are supplied! How soft

is the drapery of leaves and spray that shades and partially hides the buildings in the summer, or shelters them from the winter winds! The beautiful has much to do with our happiness, after all, and the beautiful home, the dwellings and their surroundings, must always have an important influence upon the family. Such a home will be remembered, and cherished, and visited by those whom business or other causes have compelled or induced to leave it, when a common and uninviting homestead would be utterly forgotten. This, that we present to-day, is one of the loveliest rural pictures we have ever seen.



**PLAN OF GROUND FLOOR.**

The artist gives us the following description :

The accompanying designs are intended to afford complete accommodation for a small New England farm—say from 15 to 20 acres in extent.

The plan comprises house and barn, with woodshed and pig-sty all connected in one range, and having sheltered communication.

No. 1, is the front entry, 6 feet square; it opens into the parlor, No. 2, 14 feet by 15, and into a bed-room, No. 4, 12 feet by 15. No. 3, is the kitchen, 14 feet by 15, opening into the bed-room, back entry, and through a passage into the parlor. No. 5, is the back entry, 6 feet by 16, containing stairs to cellar and chambers. No. 6, is a pantry, 5 feet 6 inches by 8 feet, opening into the yard. No. 7, is a store-room, and No. 9 a scullery or back kitchen, 12 feet square. No. 8, is a porch over the rear entrance. No. 10, is a woodshed, connecting directly with the barn.

The barn is 40 feet square, and contains two horse and three cow stalls, No. 11, with a passage behind, and an opening to throw manure into the pig-sty, No. 13. No. 14 is a carriage-room, with double doors, opening into the yard, and No. 15 barn room for storage, 24 feet by 39. Room for hay is in the second story, which is well ventilated at the top. The stairs to the hay-loft are at the side of the carriage-room, and under them is a harness closet.

The second story of the house contains three bed-rooms, with a large closet to each, besides a large clothes' press in the entry.

**Construction.**—This design may be built of wood, and covered either in the vertical and battened manner, or in the horizontal manner, with narrow clapboards—the usual New England style.

The lower story windows, with the exception of the one in front, are all mullioned windows, shielded by hoods supported on brackets.

The dotted line on the plan represents the division between the main body of the house and the one-story addition.

**Cost.**—This range of buildings could be built for about \$1500. G. E. H.

#### HOW TO DRIVE OXEN.

The *Rural New-Yorker* contains a very sensible article from the pen of Mr. S. E. Todd, of Lake Ridge, N. Y., on the important subject of driving oxen. He says that a good whip is the only proper thing to drive oxen with, and that neither a cudgel, a hand-spike, nor a pitchfork, should ever be used. The stock of the whip he wants not less than seven or eight feet long, with a small light lash of not more than two feet in length. Such a whip can only be used to guide the oxen by its light touches and skilful motions, and never to flagellate them. The following minute directions contain the philosophy of driving, and may be adopted in practice with decided benefit.

When driving a yoke of oxen straight forward, let the driver stand by the side of the near ox, say three or four feet from him, with his whip erect, so that both the oxen can see. Now, as the word *come along* is given, in a plain, open sound, just

touch them both with the lash, on their rumps. Touch the slowest ox first. Now, keep the whip erect, as a soldier carries his musket when marching. When the word *whoa* is announced, let the driver stop short and speak distinctly, *whoa*. If he is not able to bring out this Yankeeism, in a round, full tone, let him speak the letter O, with an open, round sound—not draw it out, nor snap it off, like the yelp of a wolf—and at the same time raise his whip and let the lash fall on the forehead of the ox that is least inclined to stop. It may be necessary, in some instances, to give an ox a blow with the lash, so that it will smart a little; but it is much the best to try a light touch with the lash first. Never keep the whip swinging over the oxen, and around their heads, when they are moving forward. In driving oxen that are very spirited, when they are going straight forward, and are inclined to go too rapidly, the driver should stand about even with the yoke, and put his whip forward of the heads, touch them lightly, and try to check their rapid pace with light blows. If they become too impetuous, give them the word *whoa*, and stop, and then start onward again for a short distance. But spare all the hard blows with the lash until there seems to be no efficacy in gentle touches with it. Never keep up an incessant *whoa, whoa, whoa*, in order to make any team walk more steadily, and with less rapidity.

When it is desired to have oxen *gee around*, let the lash drop on the buttock of the near ox, immediately after the word is given to *gee around*, and let the driver step forward, near the head of the near ox, and make a motion to the off ox to back. If the off ox is not inclined to *gee*, touch him with the whip, on the left shoulder. If the off ox dashes ahead too much, touch him lightly on the head, and touch up the near ox, behind, with the lash. To *haw them around*, let the driver step back opposite the tails of the oxen, and give them one word, *haw around*, and at the same time touch the near ox with the lash on the forehead, and the off ox on his rump. If the near ox does not *haw* as much as he ought to, by touching on the head, give him a blow with the lash over the shoulders, so that the lash will strike on the right shoulder. As soon as oxen have become accustomed to the words of command, and touches of the whip, they will obey very promptly, with only the motion of the whip, without touching them. Oxen will notice the motions of a whip, and the motions and words of the driver; and if they are always made intelligently and understandingly, oxen will very soon learn to step to the mark with all desirable promptness. A swing of the whip from near the rumps towards the heads of oxen, when the driver is standing by the side of the near ox, they will very quickly learn means to go forward. But if the driver drops back, as they are going forward, and swings his whip over the oxen in a diagonal direction, from over the rump of the off ox, towards the head of the near ox, well trained oxen will immediately *haw*, if not a word is uttered to them.

When a driver walks or rides behind his oxen, a swing of the whip, over the oxen, from right to left, or a touch on the forehead, or right shoulder of the near ox, and a touch with the lash on the buttock of the off ox, will always make them *haw*; while a touch on the forehead and left shoulder of the off ox, and a touch at the same time on the

buttock of the near ox, will make them *gee*. But the words of command should always precede the motions and touches of the whip. It is very seldom necessary to strike good oxen a smart blow with a whip; and raw hands should always be very careful how they touch their oxen, and above all, how they strike them. It is always attended with no good consequences to whip any oxen, unless we know they are in the fault, and know how to obey better; and when oxen are very spirited, they will always obey infinitely better with a gentle touch of the lash, and a good round word of command, than with all the whipping and yelling that a boisterous teamster is able to bring out on the occasion. Whipping obedience into spirited oxen, is not unlike Aunt Chloe's whipping her refractory boys; "while she whipped out one devil, she whipped seven more in." Let young ox-drivers always be taught to spare the whip, and to give the words of command correctly, and the proper touches of the whip.—*Homestead.*

*For the New England Farmer.*

#### "IS THERE ANY PROFIT IN FARMING?"

MR. EDITOR:—It will, without doubt, be recollected by many of your readers that I wrote an article, which you were kind enough to publish in the *Farmer* of Aug. 20th, with the above caption. The position which I took in that article will also be recollected, viz., that farming in New England is not a paying business; that the public, and even the farmers themselves, to a large extent, are deceived in the matter. This I undertook to show with what logic I possessed; also, I gave some statistics, and a few quotations from what I deemed good authority, to prove my position.

Now, I must in candor say, that when I penned that article, I supposed it would be replied to, if at all, by just that class of farmers of whom I spoke in the article, who, having "money to spend," &c. &c., consider this as a good business.

It will, perhaps, be as well for me to state in the outset, that I intend in this article to reply to my "Springfield" friend, who undertook, in the *Farmer* of Oct. 22d, to review the article to which I have above referred, and to show that farming is profitable.

It is an old saying, and a very good one, that "circumstances alter cases." As this is one of the "cases" that "circumstances" have altered, and as but a very small proportion of the farmers can be located in a thrifty and growing city, comfortably, pleasantly, and, for the sake of the argument, and for nothing else, profitably if you please, at farming. Springfield is situated on the banks of the Connecticut River, in Hampden County, in this State. It is a city of some 15,000 inhabitants, and is at this day making great progress in wealth and population. The Western Railroad passes through this place; the United States Armory is here located, which adds largely to the thrift of the city, also factories of various kinds are in successful operation. Further, the soil on the banks of this river is well adapted to the growing of tobacco, and large quantities of it is put to this use. Here, also, land is sold by the foot. Is it necessary for me to look any further for the solution of the argument of my friend J. A. A.? What say you, brother farmers, all over New England? If

your ancestors had left you the broad acres in a great and populous city, how monstrosly "profitable" farming would seem. Do store and other bills accumulate, and the crops come in light? Have you become worn out by hard toil, and the doctor's bill looks you in the face? Have the wife or the little ones been on the sick list, too? Or, is it necessary to send the boy to college? A few corner lots will harmonize the whole. What a beautiful thing farming is.

Now, Mr. Editor, I suppose I must take up your correspondent's article, somewhat systematically, and treat of it as he goes along. In the first paragraph, he says the writer "must be located in a very ill-favored portion of the country." In the old town of Chelmsford, joining Lowell, the second city in New England in wealth, population and enterprise, (saving tobacco—we don't grow the weed here, we profess to be a moral people,) is the writer's residence. Of the capabilities of the town in the agricultural line, perhaps I can give it in no better way than in the language of one of its most distinguished citizens. Dr. Bartlett, in a lecture before the Agricultural Society of this town, said, "that in his opinion, not a farmer in town was getting a living, without he had either fruit or wood to sell." Now, although Chelmsford produces a large supply of both of these articles, and there are but few farmers who have neither to sell, so that on the whole, this may compare favorably with most farming towns, yet, with all the privileges that this has over most places, even here it is up-hill work. The truth of the matter is just here—that no farmer could, for any considerable length of time, sustain his position, were it not for the outside helps that he is constantly obliged to resort to. He must have capital, and it is folly to think to farm without it. Then, this capital is dead property, for with this, he has to combine a larger amount of labor and economy than would give him a better living at many of the trades that are in vogue, that are much more easily attained than to know how to farm. One of two things is true; the farmer has to relinquish all hopes of any per cent. on his capital, or throw away his labor to get a fair per cent. on his investment. Does any one believe that a man can take a farm and its appendages entirely on credit, and pay his interest, and in the course of time, free himself from his liabilities, and retain the farm? This is what a large proportion of those engaged in other pursuits are constantly doing.

If my friend "J. A. A." will be kind enough to stop guessing, and go into the figures, the facts, as they actually exist, and from these obtain or arrive at his conclusions, he will be quite as likely to be correct. This guess work should be abandoned, and facts and figures should take its place. Now if "J. A. A." has made a fortune at farming, or any considerable portion of one, he has the ability to tell how it was done. This would do much to establish his position. In this State, there are 35,000 farms, and allowing two men to each farm, would give 70,000 farmers, equalling in numbers all other trades. If "J. A. A." will find one solitary individual (Springfield included,) out of this army of farmers who has for a series of years made fair mechanic's wages over and above a reasonable per cent. on his investment, at farming, then I shall learn something that I never before have seen. And, unless he can do this, and



much more, then his whole argument falls to the ground.

Perhaps I can illustrate the position I take, in no better way than by relating an anecdote, which was recently told me. A friend of mine who takes a similar view of the matter with me, said "he had been several times opposed in his view by a stout and rugged old farmer who instanced his own case to prove that the business was lucrative." "Well," says my friend, "you have made money, have you?" "Yes, I have done well, and I know it is a good business. But, what are you figuring about?" "I was merely reckoning up to see how much you have made." "I guess I know how much I have made without your figuring." "Well, well; I merely wanted to see; figures, you know, won't lie." "Well, how do you make it?" "Do you want I should tell you?" "Certainly, you can't alter it." "Well, then, if I have got it right, you lack \$60,000 of having made a living." "How do you make that out?" "You say you had so much (showing him the figures) left you?" "Yes." "You are now worth so much?" "Yes." "Well, then, if you had put your money at interest when you came into possession of it, and kept it there, and got your own living since, you would have been worth what I told you."

Now if my Springfield friend will furnish the evidence of what he says, and will truthfully make it appear that this is "profitable, and that farmers are the most independent people in the world," it is all I ask for. I think, however, that where we mainly differ is in this—he has one class of farmers in view, and I another. It is the poor farmer whose position I am speaking of, and not these city folks who farm for amusement, without regard to the cost.

Again, friend "A" says; "I suspect that Mr. P. having probably been employed in other pursuits before engaging in agriculture 'some seven or eight years' since, may possibly be lacking in agricultural experience, so necessary to success, and has had the misfortune to locate in a bad situation, both combining, perhaps, to render him sick of his new vocation, and consequently he looks upon the dark side." Here is more guess work, at which friend "A." has been about as successful as he is in guessing at the "profit" of farming. The truth is, I am not "sick" of farming, nor have I "located in a bad situation." All that I want, is, that the truth and right may prevail. When I see all other classes of men making a living by their business, and generally much more, (which I do not object to,) I am led to inquire how is it with the business that sustains all others? I would not say a word, did not I believe that there is a remedy for the wrongs that I am speaking of. But, it is no use to say a word about a remedy till we understand our position, and if things are all right, then let them remain.

Again, "a good cow should give four quarts at early milking, at least, or eight quarts per day, through the greater part of the year, and even more than this, a considerable portion of the time." I believe a cow may be kept well, in most localities for about forty-five dollars per year, and should yield an average of six quarts of milk per day. "The milkmen generally get from four to six cents a quart for milk, and, consequently, the farmer should not receive less than three or three and a half cents for his milk, at his door." Now

this is all guess work again, and you have not given a single fact to substantiate a word of what you have said. A cow that gives milk, requires 2½ per cent. on her live weight per day of good English hay or its equivalent to sustain her position. Is this keeping her for forty-five dollars per year? The farmers have been selling their milk for eighteen cents per can in this county, and in New Hampshire on the line of the railroads, this last summer. The cans hold, Massachusetts measure, from nine to eleven quarts. Is this "from three to three and a half cents per quart?" No supposition, or guess work here. Now, if friend "A." can put these items together, and figure up a "profit," I am thinking it would take a larger city than Springfield to hold him.

*Chelmsford, Mass., Nov. 7, 1859.*

T. J. PINKHAM.

#### AMERICA'S NOBLEMEN.

The noblest men I know on earth,  
Are men whose hands are brown with toil;  
Who, backed by no ancestral graves,  
Hew down the woods and till the soil,  
And win thereby a prouder fame  
Than follows king or warrior's name.

The workingmen, what e'er their task,  
To carve the stone or bear the hod—  
They wear upon their honest brows  
The royal stamp and seal of God!  
And brighter are the drops of sweat  
Than diamonds in a coronet!

God bless the noble working-men,  
Who rear the cities of the plain,  
Who dig the mines and build the ships,  
And drive the commerce of the main—  
God bless them, for their swarthy hands  
Have wrought the glory of all lands!

#### NEW PUBLICATIONS.

THE FREE SPEAKER; A New Collection of Pieces for Declamation; Original as well as Selected, intended as a Companion to "The Hundred Dialogues." By William Bentley Fowle. Published by the Author. 1859.

This book is intended for our common schools, and ought to be in use in every one of them. The pieces of which it is made up, as compositions, or examples of terse and vigorous English, are, as a whole, scarcely equalled by those of any school-books now in use; while their sentiments inculcate that love of justice, of freedom and country, which no other school-book has ever yet dared to do. They also everywhere urge that no earthly power should ever, for a moment, be interposed to alienate or compromise our direct, personal duty to God. All profit, pledge and expediency, must yield to duty to the great Head and Source of all.

Our school-books are, most of them, tame and savorless things. They exhaust the strength and patience of the pupil in obtaining a fluent and melodious elocution, while they ought to press home upon the heart those sentiments of justice and duty which will make even the unlettered person eloquent. The "Free Speaker" has the happiest combination of both. While it breathes the spir-

it of philanthropy and love on every page, it also utters that Puritan sternness for right that never compromises with wrong.

In its appropriate branch of learning, the school-book should not only teach the child how to declaim, but at the same time something of the nature of the laws and government under which he lives,—of agriculture, of the sciences and arts,—and especially, of those principles which impel and make prosperous a free and virtuous people! A mercenary thought underlies the publication of too many of our books: the question being, *how* will it sell, and *where* will it sell, so that the larger half of our population, who are right, have no book yet that speaks for them.

The Free Speaker has two or three features of importance. One is, that the pieces are all new, and not the hackneyed ones that have been worn threadbare for the last half century. This is a matter of consequence to those who speak in our schools. The other peculiarity of the book is, that about one-quarter of the pieces are original. The pieces are all single. We hope the "Free Speaker" will have a widely-extended use; and if so, good men and good women will be greatly multiplied in the land.

#### LETTER FROM WESTERN VIRGINIA.

Farmers and Farming—Great Products of Corn, Potatoes, &c.—The "Institution" fading away—Yankee Influence—Soil and Climate—Progress in Ceredo.

Ceredo, Va., Oct. 24, 1859.

Since I have been here, two years and above, and taken some pains to make observations on the subject, I am able to offer some testimony as to the productiveness of the soil in this section. I find the effects of the "institution" here, where there is no slavery comparatively. The most intelligent residents themselves will tell us, that they do nothing at farming, because they do not try—they are too lazy, and have been taught from childhood that only slaves should labor industriously and constantly; so if they wish to produce any crops, they hire some one to cultivate the land for them, or rent it out to some one poorer than themselves, and neither of them make a living. This is the case with a majority of landholders in this county. So that when a stranger rides along the highways, he will see only a few attractive farming operations, and would not be favorably impressed with the quality of the soil.

The neglect to cultivate the soil, and in fact the neglect to do anything in season, or as well as it should be done, is so generally the practice, that farming makes a poor show. However, there is here and there a farmer who does the best that can be done for profit and for his land. A farmer, two miles from this, who this year cultivated about one hundred and fifty acres of land, shows what *can* be done in the way of large products.

On a piece of hill land where his predecessor could not get a living, he raised corn at the rate of eighty-five bushels to the acre. I saw some of it before it was cut. I could not reach the ears on the stalks, and many of the ears are more than

one foot in length. I heard of stocks seventeen feet high, and ears of corn sixteen inches long, but did not see them. The same farmer, however, has one piece of corn of fifty-six acres, on which he has raised fifty-six hundred bushels of corn. He is a systematic, energetic farmer, and goes in for improved machinery, and all the best farming tools, and so he makes four times as much as his neighbors, who attribute his success to the use of capital!

I was going to tell what I had seen of the products of the soil. I saw an acre patch of melons, from which the proprietor had sold \$200 worth of melons, and there were three to five hundred yet on the ground. The ground was scratched up once, and the seed put in—that's all. In spite of such bad treatment, the ground produced enormously. The same man had sweet potatoes growing on an adjoining piece of land, and they turned out at the rate of more than 250 bushels to the acre—or if you wish to have me exact, the ground which I measured was five feet long, and two feet wide, and the product was more than a bushel and a half. Some of them were very large, and all very good—the best I have ever eaten.

Apples and peaches grow without care or cultivation, of the best quality, and very large. Many orchards bear the Rome Beauties, as they are called, year after year, the trees yielding from five to eleven barrels each. These apples are very fine flavored, mature about Christmas time, and are a general favorite in the Ohio Valley. Thousands of barrels go down the river every year. Another very excellent apple, ripe now, and not good to keep, is what is called the "Blue Pearmain." The specimens I saw—a lot of thirty bushels—would more than half of them measure twelve inches in circumference. They are very rich flavored. But little fancy fruit, cultivated with the greatest care, could be better. There is a peach orchard on the mountain side, thirteen miles from here, where the trees have borne every year without fail for twenty-four years. They have had little care, and have never been trimmed out.

It would not be worth while, perhaps, to particularize the mammoth turnips, beets, sweet potatoes, &c., for you have such things at your agricultural fairs; but they are so common as not to excite admiration, and they grow without the expense of cultivation required in a different climate.

Wherever a Yankee has cultivated the ground, he has got such returns as excited his special wonder, and fixed him here for good. One who purchased a farm six miles from here two years ago, for four dollars and fifty cents per acre, was laughed at for paying so much for the "worn out" farm. I could see that he knew what he was about. He knew a farm which was never cultivated could not be worn out; and now, the men who laughed at him begin to think he knows something; and that same Yankee has now as much influence, and his advice is sought as often as that of any other man in the neighborhood. He had only been at work eighteen months, when his nearest neighbor, an old man and a slaveholder, made up his mind to sell his best "cash niggers." So five of them were at once disposed of, and he has only little nigs, and feeble, or females, for help in the house. He "reckons" he can cultivate his farm as cheap by free labor, and has not anything to say against Yankees, as he did at first, supposing they were



all abolitionists, as he said. The Yankees who coolly go to work in their own way, without regard to custom or precedent, are a puzzle to the Virginians. They soon see the advantage of certain modes of doing things, however, and are not long in adopting what appears to be the best method of managing a farm.

Such is the influence already exerted upon the most intelligent of our neighbors. Without any design or desire to influence them or meddle in the affairs of others in any way, the Yankee farmers went to work in their own way, and the result of their labors was sufficient to convince any but a fool, that the soil had been trifled with, and that a climate that would furnish green beans five months in the year, was good enough for anybody with brains.—*Boston Journal*.

#### THE STATE BOARD OF AGRICULTURE.

This Board met at the State House Nov. 29th, and continued its sittings three days. Hon. MABSHALL P. WILDER presided over its deliberations. The subject of the formation of farmers' clubs, and the act of 1859, was taken up and discussed at some length, when a committee was appointed to consider the act in relation to the formation of said clubs. This committee, consisting of Messrs. BARTLETT, FISHER, BROWN and GRENNELL, subsequently reported: That the chief, perhaps the only object, attempted at this time, should be the establishment of farmers' clubs, and the aid of those already established. They did not recommend details, but advised the appointment of a committee to carry out the provisions of the act, and recommended that the plans, constitutions and by-laws of the various farmers' clubs *already* organized, should be as much in uniformity as possible with those hereafter formed. They also advised that each member of the Board should give notice in the several towns within the limits of his society, of the desire of the Board to establish farmers' clubs, and of the benefits to be derived from them.

Reports of the delegates to the county societies were then read and discussed.

#### SECOND DAY.

Reports of delegates were continued. Upon the motion to accept one of these reports an animated discussion ensued, which assumed a very interesting character.

Mr. DAVIS, of Plymouth, moved that the reports be *not* printed. He thought much that was seen and said would have no public interest, and while they might be important in repeating details to the Board for their information, yet a delegate would not wish to utter it, if it were to go out before the public.

Mr. GRENNELL, of Greenfield, thought it best to administer reproof, when needed, in private, by way of suggestions to the officers of the soci-

eties, where it would ordinarily do more good than through the medium of a public printed report.

Prof. CLARK, of Amherst, expressed the opinion that the report of a delegate, if properly prepared, was a document of permanent value as a means of comparison and reference in future, and, as such, worthy of publication.

Mr. BROWN, of Concord, thought it well that the delegate should give his ideas and recommendations with reference to the exhibition he had witnessed, but that *the Board itself* should express some decided opinion upon the practices and customs criticised or commended, in the form of a resolution, or some other mode of expression, so that the farmers of the State may learn what opinions the Board entertain with regard to the modes of conducting the exhibitions in the several counties.

Mr. BROOKS, of Princeton, hoped the printing of the reports would be discontinued, unless the Board should adopt the plan of discussing them. Dr. FISHER, of Fitchburg, was in favor of printing.

Mr. LEWIS, of Framingham, said the reports occupied on an average only about a ninth part of the whole volume. They are its most valuable parts, and are wanted as a means of comparison. Messrs. BARTLETT, CLARK, DAVIS, ATWATER, FELTON, and others, continued the debate at some length, and then the motion not to print was laid upon the table.

The subject of holding a *second State Fair* was committed to a committee of five, who subsequently reported that a fair be held in September next, at such place as will furnish the best accommodations and the necessary guarantee fund.

Messrs. BARTLETT, CLARK and BULL were elected a committee to carry out the provisions of the act in relation to the establishment and encouragement of farmers' clubs. See chapter 203, Massachusetts laws, 1859.

Messrs. WILDER, BROOKS, BULL, SUTTON and ATWATER were elected delegates to attend the annual meeting of the United States Agricultural Society at Washington, on the second Wednesday of January next.

#### THIRD DAY.

Board met at ten o'clock. The subject of the returns of circulars, and the reports upon them by the several committees, was discussed, and it was ruled that the answers of the circulars should be compiled by the respective committees, and their contents reported at the annual meeting of the Board in January next.

Nearly all the members of the Board were present, and they manifested a deep interest in the subjects presented for consideration.

*For the New England Farmer.*

### WHAT A COW CAN DO.

MR. EDITOR:—Having seen various statements, for several years, in your journal, of the quantity of milk given by different cows at stated periods, I am induced to send the statement of two years' doings of one that I have owned for the last five years, but lost in calving a few weeks since. She was said to be one-half Native and one-half Durham, or Short-horn. Her appearance warranted the latter, at least. Living in the city, I could make no dependence on pasture, but have had to depend on what I gave her in the barn. You will see, she gave the most milk the first year. I account for this in two ways. I milked and fed her myself, and I am satisfied I can make more milk, (with the pasture I had,) to have my cow calve in the winter or fall, when I can feed cut feed, roots, rowen and oil meal, alias flax seed, than I can on grass, when I cannot add the former. I am not one of the fortunate ones who are able to make large quantities of milk on grass alone. I could not obtain the latter, and therefore had to find substitutes, or rather auxiliaries, and plenty of them. I have often heard it advanced that cows giving large quantities, could not give good milk. In answer to this, I will say,—one season when she was farrow, I took the cow into the country where my family were staying, from July to October, when she was giving, on an average, nine quarts daily; after using all we wanted in the family of seven persons, my wife made over seven pounds of butter per week for fourteen successive weeks, which I think is proof positive that her milk was A 1. The most she ever gave me in twenty-four hours, milked 6 A. M. and 6 P. M., was twenty-three quarts, one and a half pints. Thus:

1856.—Took calf away Feb. 1st.	<i>Qts.</i>
Amount of milk, Feb. 1st to Aug. 1st.....	2459
" " Aug. 1st to Feb. 1st.....	1928

Number quarts one year.....4387  
4387 quarts, at 5 cents per quart.....\$219,35

1858.—Took calf away July 1st.	<i>Qts.</i>
Amount of milk, July 1st to Jan. 1st.....	2239-2
" " Jan. 1st to July 1, 1859.....	1083

Number quarts one year.....3322-2  
3322-2 quarts, at 5 cents per quart.....\$166,12  
\$415,47

All the milk not used in the family was sold at a store, at 5 cents per quart the year round; many carts selling at 6 cents through the year.

H. R. CONGDON.

*Providence, R. I., Nov., 1859.*

### THE GARDEN.

The garden is a bound volume of agricultural life, written in poetry. In it the farmer and his family set the great industries of the plow, spade and hoe, in rhyme. Every flower or fruit-bearing tree is a green syllable after the graceful type of Eden. Every bed of flowers is an acrostic to nature, written in the illustrated capitals of her own alphabet. Every bed of beets, celery or savory roots, or bulbs, is a page of blank verse, full of *belles lettres* of agriculture. The farmer may be seen in his garden. It contains the synopsis of his character in letters that may be read across the road. The barometer hung by his door will indi-

cate certain facts about the weather, but the garden, laying on the sunny side of the house, marks with greater precision the degree of the mind and heart culture which he has reached. It will embody and reflect his tastes, the bent and bias of his perceptions of grace and beauty. In it he holds up the mirror of his inner life to all who pass, and, with an observant eye, they may see all the features of his intellectual being in it. In that choice rood of earth he records his progress in mental cultivation and professional experience. In it he marks, by some intelligent sign, his scientific and successful economies in the corn field. In it you may see the germs of his reading, and can almost tell the number and nature of his books. In it he will reproduce the seed-thought he has culled from the printed pages of his library. In it he will post an answer to the question whether he has any taste for reading at all. Many a nominal farmer's house has been passed by the book-agent without a call, because he saw a blunt negative to the question in the garden yard.—*Elihu Burritt.*

*For the New England Farmer.*

### FRUIT CULTURE.

MESSRS. EDITORS:—In Hovey's Magazine for November, the editor, speaking of Fruit Culture, says: "It has been remarked by some horticultural write that *all fruits* succeed best in the localities where they originated." This I am not willing to admit. I am not aware of any writer who asserts that "*all fruits so succeed best*," &c. But as regards apples and pears, particularly the former, this is affirmed by many; thus, in a report which appeared some years since in the Essex Agricultural Transactions, upon the apple, the writer recommends the cultivation of those varieties which are indigenous, or have been first grown upon our soils, having for many years observed, that the best apples in our markets were generally those sorts which were first produced in New England.

Henry Ward Beecher, writing from the West a short time after, in corroboration of this, remarked that the best apples in the West were those varieties which originated in the "Great Valley." With us, the Hubbardston Nonsuch, Baldwin, Roxbury Russett, Mother, Porter, R. I. Greening, Minister, Danvers Winter Sweet and Hurlbut, are among our best fruits, while the Newton Pippin, Esopus Spitzenberg, Red Doctor, Pennock's Winter and Red Gilliflower, fruits which are first-rate when grown in their native habitats, are inferior when grown here. It has been said that the Porter and Baldwin are nowhere so good as in Massachusetts; while the Newton Pippin is best on Long Island, and the Spitzenberg in Western New York. Mr. Van Buren, of Georgia, says "I have in my orchard the Spitzenberg, Newton Pippin, Minister, Peck's Pleasant, Vandevere and the Swaar; these northern varieties, although making a good growth, yet for twelve or fourteen years producing not more than a dozen, or half a dozen specimens to each tree, annually, while all our *native varieties*, bear good and abundant crops from three to five years after transplanting."

The same may be said of our imported kinds generally, with the exception of the Gravenstein, of Germany, and the Ribstone Pippin, of England;

the former succeeding as well as many of our varieties, and the latter, if in a rich and moist soil.

With regard to the pear, he says, "The history of pear culture does not confirm this," adducing the Bartlett as an example. I admit that the Bartlett pear tree will assimilate to itself materials for an abundant crop in almost all good soils; in fact, I hear of its successful culture throughout the country, more so than in any variety of the apple, while the St. Michael, St. Germaine, and some other varieties of the pear, cannot be grown here successfully. That the cultivation of this fruit "is yet in its infancy," as said by this editor, I admit,—hence it is impossible to say, as yet, how much this idea of locality, as said of the apple, will apply to the pear.

J. M. IVES.

*Salem, November, 1859.*

*For the New England Farmer.*

#### MISCELLANEOUS OBSERVATIONS

On Farmers and Farming, and Changes of Custom since the Revolutionary War.

MESSRS. EDITORS:—My first lessons at farming were taken while with my father; he was the proprietor of three or four hundred acres of land. He emerged from the revolutionary war, like many other revolutionary officers, as destitute of money as the gambler who has lost his last dollar. He was a member of the Provincial Congress in the years 1774 and 1775; he was in the Concord fight, and held the commissions of major and colonel of the 7th regiment of the State forces during the whole war. He sold part of his farm, and finally had to take his pay in the paper currency, which had depreciated so much, that the purchaser boasted that one load of wood sold from the lot, discharged the whole debt for the land. After peace was declared, he began to apply himself to farming operations like one awakened from a dreamy maze. His fences were poor, bushes and brambles were trespassing upon his tillage land, taxes high, a scarcity of money, and the gloom from the reaction which took place consequent to the long continued war excitement, were obstacles which must be met without flinching, or all must be lost. The poverty of farmers at that period was distressing; men possessing good farms, who had been engaged in the war, were necessitated to neglect their farms for the want of help to do the labor. The owner of a good farm, and a worthy man, came to my father in distress for bread for his numerous small children, and asked his advice what he should do, and said he was afraid they should all starve.

These times were soon followed by Shays's insurrection, caused by government oppression to force people to pay taxes and debts, who had nothing. I can distinctly remember that gloomy time. Those people who were not able to make their own candles, collected pine knots and made splinters for illuminating their unpapered, unpainted, and almost unlighted rooms, which were the darker for the nightly fumigation of the burning torches. What little clothing the country people wore consisted of cloth of home manufacture, produced from articles raised on the farm, or from cloth of home manufacture, bartered for foreign goods. If there was a man in town who wore broadcloth,

he was a subject of general remark, accused of extravagance, and an object of envy. The young ladies of the best families turned out to meeting with their home-spun linen gowns, and many of the young men with patches on the knees of their pants. I have known the mothers of blooming young ladies strap on to their horses' saddles cloth of their own manufacture, and ride fifteen or twenty miles to Charles' Ferry, and leave their horses at Charlestown, and pass over to Boston in a ferry boat with their merchandise within their arms, and then traffic it away for a little calico, or other gewgaws to decorate their fascinating daughters.

The period from the close of the revolutionary war to the commencement of the revolution in France, was a gloomy, distressing one to farmers, which "tried men's souls." The revolution and wars in France and the rest of Europe caused a sudden impulse in the business part of the community in this country, which revived the desponding farmers. Every article of farm production took a sudden rise, and the demand was such, that from a kind of despairing lethargy, the farmers waked into new life, and in a few years paid their taxes and other debts, and began to buy land to enlarge their farms, which caused a rise that eventually led to disastrous land speculations.

The period from the French revolution to the British "orders in council," Bonaparte's paper blockade and the embargo, was a very prosperous one to farmers. Foreign goods began to be imported in abundance, people began to dress better, and a broadcloth coat was not of such singular occurrence as to excite all kinds of feeling but good ones.

The period from the embargo to the end of Mr. Madison's administration was anything but a pleasant one, especially for the inhabitants of our cities. The complaints of the people all along the sea-coast were really distressing. The ladies retreated back to manufacturing their go-to-meeting plaid gowns from factory-spun yarn, and other branches of economy were substituted, in contrition for former extravagance.

The period from the treaty of Ghent to the present time, has been one big with astounding events. Steam navigation, the sudden mushroom growth of manufacturing cities and railroads, the invention and improvement of all kinds of agricultural implements, will equal the periods of any age, or the improvements of any nation. But the extravagances, swindling operations and various other rascalities will defy the enormities of all Christendom, the heathen lands and the cheats of the whole world.

I stated above, that my first lessons at farming were taken while with my father, and of course in the last century. His home farm contained about 200 acres of undulating land, and not stones enough on the whole to make a rod of wall. He kept about twenty head of horned cattle, two horses, a flock of sheep, and more or less swine. He covered his barn-yard six or eight inches deep, with rich loam, and rye straw for the cattle to sleep upon during the summer, which he plowed occasionally, to have it well mixed. In the month of November, this compost was carted and spread upon his runs, or swales, where he obtained the most of his English hay. His winter manure was mostly applied to his potatoes and hops, and the residue spread upon his corn fields. This land was warm

\* Jonathan Brown, Esq., of Tewksbury.

and dry, and he seldom put dung in the hill for corn. He obtained the most of his grain from the natural strength of the soil. He planted his potatoes on the damp land, and manured in the hill, and I have helped to dig potatoes there, that produced a peck to the hill, where now it will take twenty or thirty hills to fill a bushel. Thus my father went on, he growing richer, while his land was growing poorer, and in a few years he doubled his property, as we supposed, and bought other farms for the sons that remained at home. This is a specimen of farming of the last century.

Many of our city friends, unaccustomed to country life, form erroneous opinions of farmers and farming; they judge according to appearances, and, therefore, do not judge a righteous judgment. They judge the farmer by the cloth he wears, and the starch he does not wear, and conclude that farming has rather a degrading tendency. It is true that some clownish characters are engaged at farming, but not more in proportion to the number than we shall find in all other professions and occupations, when we come to look under, perhaps, the better cloth that covers them. Farmers worthy of the name take the "papers," and are well posted up on the interesting affairs of Church and State. The farmer has the whole horizon for his office; he is not confined by bricks and mortar to a narrow compass to the injury of his health and contraction of his mind. Farmers in country towns are generally the rulers of the towns; they pay the most of the taxes to support the poor, to build school-houses and to pay teachers for instructing their own children, and the children of those who do little else than help vote away the farmers' money for their own benefit.

The most of this, piece was written on the day that completed my eighty years of experience in this world of sin and suffering, good and evil, hope and despair. If you find any soft spots in it, exercise that charity which the aged naturally claim.

SILAS BROWN.

North Wilmington, Mass., Nov. 11, 1859.

REMARKS.—An exceedingly interesting letter, and a wonderful performance for that age.

#### NEW PUBLICATIONS.

DADD, on the Nature and Treatment of the Diseases of Cattle, with Descriptions and Illustrations of the various Organs and Functions of the Animal Economy. Containing, also, Useful and Practical Information on Breeding, Ventilation, and Diet. By George H. Dadd, Veterinary Surgeon. Boston: John P. Jewett & Co.

Dr. Dadd thinks the common inquiry among farmers has heretofore been, "How shall we protect our property [stock] against the ravages of disease?" But that the more important question is, "How shall disease be prevented?" The latter is, certainly, the view for us all to take. A proper care of stock will prevent most diseases; and even when it has invaded the system, nature, left to herself, will ordinarily do more to effect a cure than all the nostrums of the shops. Dixon expresses it better than we have; he says—"Nature is ever busy, by the silent operation of her own forces, in curing disease; her medicines are air, food, water and rest." That is, food that the

natural appetite desires, and rest. Warmth and repose, with the recuperative action which the animal inherently possesses, will usually bring health, unless the system has been grossly abused.

This work treats of the following subjects: Diseases of the Organs of Respiration; and of the Digestive Organs; on the Principle of Breeding; Parturition, or Labor. Diseases of the Generative and Urinary Organs; the Heart—its Functions and Diseases; Diseases of the Eye and its Membranes; Ruptures; Diseases of the Bones; Rheumatism, Acute and Chronic; Diseases of the Liver, Brain and Skin, &c. These topics are treated, generally, in an understandable manner, though we think if there were less of the technicalities of the profession, the book would be more valuable. The Doctor's mode of treatment is moderate and consistent, compared with some of the "fire and brimstone" treatises that have preceded it. The book is finely printed, thus showing a proper regard for human eyes as well as the health of stock, and ought to be owned by every person keeping a dozen head of cattle.

#### INSECT LIFE IN CEYLON.

Owing to the combination of heat, moisture, and vegetation, the myriads of insects in Ceylon form one of the characteristic features of the island. In the solitude of the forests, there is a perpetual music from their soothing and melodious hum, which frequently swells to a startling sound as the cicada trills his sonorous drum on the sunny bark of some tall tree. At morning, the dew hangs in diamond drops on the threads and gossamer which the spiders suspend across every pathway; and above the pools, dragon-flies, of more than metallic lustre, flash in the early sunbeams. The earth teems with countless ants, which emerge from beneath its surface, or make their devious highways to ascend to their nests in the branches. Lustrous beetles, with their golden elytra, bask on the leaves, whilst minuter species dash through the air in circles, which the ear can follow by the booming of their tiny wings. Butterflies of large size and gorgeous coloring, flutter over the endless expanse of flowers; and frequently the extraordinary sight presents itself of flights of those delicate creatures, generally of a white or pale hue, apparently miles in breadth, and of such prodigious extension as to occupy hours, and even days, uninterruptedly, in their passage—whence coming, no one knows; whither going, no one can tell. As day declines, the moths issue from their retreats, the crickets add their shrill voices to swell the din; and when darkness descends, the eye is charmed with the millions of emerald lamps lighted up by the fire-flies amidst the surrounding gloom.—*Ternant's Ceylon.*

PLANTING PEACH TREES.—A correspondent of the *Ohio Valley Farmer* says, peach trees should be set rather deep, because "the peach cannot, like the pear, apple or quince, put out new roots above the old ones."

## THE MINERAL MANURE THEORY.



ARON LIEBIG somewhat astonished the agricultural world, several years since, by the enunciation of his theories in regard to mineral manures. By some, a few only, thinking and inquiring minds, these were received not merely with a cordial approbation, but with many expressions of delight. The Baron's name soon became familiar in all agricultural circles, and his theories were adopted by many as the wonderful elixir that, like the touch of Midas, was to turn all baser things into gold: They saw, prospectively, waving fields, golden sheaves, and bursting granaries, with lowing herds and bleating sheep upon a thousand hills, in the little snuff-box full of mineral matters that were to be sprinkled upon the land! And as discussions and illustrations, which they fancied were founded upon a substantial basis, increased the value of these minerals in their minds, the true foundation of all success in husbandry—the permanent manure heaps of the farm—depreciated in importance, and thus a vital blow was struck to the cause of sound progress and success. Had it not been for the influence of another element, more conservative and scrutinizing, an error of grave character might have been fallen into; one that would have arrested the progress of agriculture, rather than have advanced it.

This other class, distrustful and cautious, doubting every thing that bore an impress of the "profession" or the "shop," received these theories with many discounts, and they inquired every where, "What manner of doctrine is this, that this man teacheth?" They did not believe that *bulk* in manure was unimportant, though the *quality* were concentrated in the highest degree, and the idea was too preposterous for consideration, that potash, lime, and magnesia, with other matters valuable or indispensable to plants, were a part of the rocks which they so cordially hated. They had not inquired as to what materials soils are composed of, or how much of these minerals are constantly added to the soil by the abrasion or disintegration of the rocks, or how little difficulty there would be in determining the character of any soil, had we only to consider the constitution of the rock from which it was originally derived. They

had not looked upon this theory in its incipient stages, seen it grow up step by step, as its projector had done, but looked upon it for the first time as full grown, and launched upon the world as a new and unattested doctrine.

Thus the zealots and the doubters contested every advanced point with each other, while more practical and discriminating men searched for, and found the Truth, between the extremes, and made it subserve the good cause. So the Baron's theories, modified by himself and others, have awakened a new interest and inquiry into the subject of *chemistry as connected with agriculture*, from which will certainly flow more ample rewards for labor upon the soil than have heretofore been gained. All men now regard chemistry in the cause of agriculture not only with complacency, but with entire confidence that it is an ally in the great work indispensable to the highest success.

If there was an error in Liebig's theory, it was in giving it a too sweeping character, whereby common persons got the idea that mineral manures would more than supply the deficiency of vegetable and animal combined, and that a profitable succession of crops could be obtained by the former alone. Whoever adopted this as a rule, soon found his error in the depreciated products of his fields. They must go together,—and without this combination, it is improbable that remunerating crops can for any length of time be harvested from the same soil.

In his recent "Letters on Modern Agriculture," Liebig touches the point upon which reests all our success in farming. With each crop, each plant, or portion of a plant, he says, taken away from a field, the soil loses a portion of the conditions of its fertility; that is, it loses the power of again producing this crop, plant, or portion of a plant, after the expiration of a number of years of cultivation. A thousand grains of corn require from the soil a thousand times as much phosphoric acid as one grain; and a thousand straws a thousand times as much silicic acid as one straw; if, therefore, there is a deficiency of a thousandth part of the phosphoric or silicic acid in the soil, then the thousandth grain and straw will not be formed. A single straw removed from a corn-field, makes this field bear one corn straw less. This must be so—and this single fact, ever present with the cultivator, should lead him to such practices as would always recuperate, rather than depreciate his soils; so that, at the end of a hundred years of cultivation, the soil is better able to produce a paying crop than it was the first year it was taken in hand.

Chemists inform us that *iron* floats in the blood that courses through our bodies, that *phosphoric acid* is a constituent of the brain and of the nerves, that *alkaline phosphates* and *alkaline earths* exist

in the flesh of all animals, and that a warm blooded animal without a large proportion of the *phosphate of lime* wrapt up in his skin, would be inconceivable to us.

We have been led to these remarks by running over Liebig's "*Letters on Modern Agriculture*," recently published, and will close them for the present with a single idea more from the Baron's luminous mind, showing the importance of mineral matters to animals as well as plants.

Were it possible, he says, for a plant to grow, flower, and bear seed without the co-operation of mineral matters, it would be utterly valueless to man and animals. A dog will die of hunger in the presence of a dish full of raw or boiled white and yolk of eggs, in which is wanting one of the substances most important for the formation of blood. The first trial teaches him that such food is as inefficient as a stone for the purposes of nutrition.

To those who find pleasure in this class of investigation, we earnestly commend the perusal of this book.

*For the New England Farmer.*

#### PRODUCT OF AN ACRE.

Your article in the paper of December 3d, headed "Three acres of land to support a small family," reminded me of some statements which I had laid aside for your paper, and which will show that a little land, well cultivated, may be made to go some ways in the support of a small family. The experiment was made by HIRAM DAMON, of this place, under rather unfavorable circumstances, as will be seen.

He cultivated, this last summer, about one acre of land, but in three several lots, some of it two miles from his house. From this one acre he raised the following vegetables, (the prices annexed are such as he obtained in the village here:)

Potatoes, 35 bushels.....	\$16.00
Corn, 5 bushels.....	5.00
Peas, 5 bushels.....	10.00
Carrots, 10 bushels.....	5.00
Beets, 4 bushels.....	4.00
Turnips, 20 bushels.....	10.00
Onions, 1 bushel.....	1.00
Squashes, 50 in number.....	12.00
Pumpkins, 20 in number.....	2.00
Melons.....	5.00
Wheat, 7 bushels, (very nice,).....	14.00

\$84.00

The above quantity he sold, besides using from this acre all the vegetables which he needed for a family of six persons.

Aside from the mere market value of his products, he has taken great pains to select and preserve his seeds, so that were there sufficient demand for these, he could realize, at medium prices, fifty dollars more.

He has twenty varieties of potatoes, raised by himself, this year, being the fourth from the ball. Some of these were planted the first of June, are remarkable for size, very mealy and finely flavored.

He has also a variety of squashes, raised hitherto only by himself, and which, in grain and flavor, surpass the famous Hubbard.

He has eighteen varieties of peas, and as many

of turnips; his object in having such a variety, is to select the choicest seeds.

We had a severe and prolonged drought this summer, which injured our crops, and made our gardens less profitable than usual.

But I thought a little statement of his gardening, with many difficulties to contend against, might be of some of value. A. E. P.

*Springfield, Vt.*

REMARKS.—Our friend, "A clergyman in ill health," with whom we strongly sympathize, will find encouragement in the details given above. In our recent remarks upon the note of the clergyman, there was a material point to which we did not allude—that of health. If he should enter upon his three acres, and labor judiciously, he would probably find himself a vigorous man again in three years, able to resume his profession, and wield the sword of the Spirit with renewed power and effect.

Let us see:—Mr. Damon sold \$84.00 worth from one acre—that acre divided into three parts, and a portion of it two miles from his house! Then, at medium prices, he had

\$50.00 worth of seeds.....	\$50.00
For other products.....	84.00
	\$134.00
	3

Clergyman's 3 acres.....\$402.00

The prospect really brightens; the clergyman's land is rich, and lies all together, so that taking the \$402, with all the garden stuff added that the family would require, together with an occasional marriage fee, and the preaching of a sermon prompted by the texts in the garden, we think, after all, he could do very well. And how delightful the occupation, with an interesting wife interested in the employment, and cheering it with her presence, her suggestions, and perhaps her fingers among the flowers! We have always supposed there were other Edens than that on the ancient river, and shall anxiously await a call to see this new one, under the supervision of "A clergyman in ill health."

GRAPE-GROWING IN NORTHERN OHIO.—Much has been said of the vineyards in the vicinity of Cincinnati. By a letter published in the *Cleveland Farmer*, we learn that there are one hundred and eighty acres planted with grapes on a small island in Lake Erie, known as Cunningham's or Kelley's Island, some twelve miles north of Sandusky. The business has been growing up, gradually, since 1851. Eight vineyards were also commenced, this spring, on Put-in-Bay Island, and several on the Peninsula.

BRONZE TURKEYS.—The gentleman who gave an account recently of these turkeys, in the *Farmer*, resides in West Thompson, Conn.

*For the New England Farmer.*

#### A PLAIN QUESTION IN ARITHMETIC.

MR. EDITOR:—Suppose a farmer buys a cow on the first day of April, weighing 1000 pounds, and six years old, for fifty dollars. On the next day after the purchase she drops a calf, which takes all the milk she gives during this month, but one quart, per day, say twenty-five quarts, which is sold for two cents per quart. During this month she consumes two per cent. on her weight of English hay, which is worth fifteen dollars per ton, and two quarts of Indian meal per day, at one dollar per bushel. On the first day of May, her calf is sold for six dollars. During this month, May, she gives nine quarts of milk per day, which is sold for two cents per quart, and consumes hay and meal same as last month. On the first day of June, she is turned to pasture, which is worth eight cents per day, and increases her milk to ten quarts per day, which is sold same as last month.

On the next month, July, the same facts exist as last month, except she falls off in her milk one quart per day. August she falls off two quarts of milk per day from last month, July, and consumes twenty-five pounds of corn fodder daily at five dollars per ton, in addition to her pasturage. The next month, September, her corn fodder is increased to fifty pounds daily, and her milk is reduced to six quarts each day; her pasturage is also reduced half. During October she runs in fall feed, or mowing fields, has nothing else, and her milk is reduced to four quarts per day, which is sold for four cents per quart. The cost of feed this month, October, the same as pasturage, eight cents per day. In November she still runs in the field, but is put up nights and fed with ten pounds of good hay and two quarts fine feed, at eighty cents per bushel, each day. Her pasturage is reduced to four cents daily this month, November, milk selling for the same as last month and reduced to three quarts daily. From the first of December to the first of April, she is fed wholly at the barn, and consumes ten pounds of good hay, one peck roots, at twenty cents per bushel, and twenty pounds of meadow hay, or corn fodder, at five dollars per ton, daily. In this month, December she gives two quarts milk per day, and in January, one quart, and dries up entirely the first of February. All her milk from the first of October has been sold, for four cents per quart.

This, in my judgment, is a fair sample of milk raising in this vicinity. Now I should like to have your correspondents in different milk-raising districts reckon this up, and let us know whether the farmer has made or lost by the operation, and how much. Also, how this corresponds with the business in their locality. Evidently, there are some minor considerations which I have purposely left out of the account, in order to see how people reckon in this important branch of human industry. Although milk, to some extent, is one of the necessities of life, yet, if it is sold below its cost, the evil that is done to the community is far greater than the good. At some future time I intend to answer this, (with your permission, Mr. Editor,) myself. In the meantime I should like to hear from some of your correspondents on the subject.

Perhaps I ought to state here that I have avoided in this calculation the fractions of a cent

which often go into the prices of this article, but they will not vary the account much; at any rate, will not make it any more favorable to the raiser of milk in this section than I have given it. For instance, one farmer told me that he sold his milk through the first or spring and summer season for two and an eighth cents per quart, and had contracted this fall and winter, at three and a fourth cents. However, I prefer to have the calculation made as I have reckoned it; holding that it is not very material whether we make a very large or a smaller loss in the business, as it in the end has about the same effect, whether we dwindle along a whole lifetime to waste our effects or find the bottom of the hill at an earlier period.

Many people seem to apprehend, that it is of but a little consequence whether they make a loss in the sale of their products or not, inasmuch as they can go ahead and appear to be doing something; as one man remarked, "somebody will get the benefit of it." But let me say to my friend, and all who take this view of the matter, that you forget about those poor neighbors and their families who have been less fortunate than you, and who depend on their own efforts for a livelihood, but cannot go into this branch of human industry, except at a loss, on account of the ruinous competition, which only can be prosecuted by those who have an income equal to this drain upon their resources.

T. J. PINKHAM.

*Chelmsford, Mass., Nov., 1859.*

REMARKS.—Our correspondent is determined to probe this business of farming, as a business on which loss and gain is concerned, to the quick. He is doing the farmers a good service, and is welcome to our columns.

*For the New England Farmer.*

#### MR. BARBER'S POTATOES.

MR. BROWN:—Your correspondent, Mr. Barber, of Warwick, wishes some explanation why his "potato vines" suddenly "turned black, in a day or two after the thunder shower the 31st of August?" There was a pre-disposing cause, upon which the rain and sudden change of atmosphere acted. Mr. Barber did not find corn, tomatoes, beans and other vegetables and crops "turning black" in "a day or two" after the "cold" rain. Why not? Because there were not at the roots of these various crops, enemies in myriad numbers, subsisting on the sap, the same as are found on the roots and lower joints of the potato plant. If Mr. Barber had made a thorough and careful microscopic examination of his seed potatoes before or after planted, he would have found perforations, small warts and slimy looking brown spots on the surface, on which are hibernated eggs of insects. After the potatoes are planted the same genial temperature which warms the earth and sprouts the potato, soon starts to life, from their nidus, myriads of minute larva insects. For many weeks, these enemies suck or pump out the sap, thus enfeebling the plant. It is a consumption, acting upon, and spreading from the very vital part to the stalks and to the tubers. This derangement and poison may be compared to consumption acting upon the vital part of the human system. The

sudden changes of weather caused by thunder and cold rains, simultaneously produced action, from heat to cold and subsequently cold to heat following, and produced the same sudden change and death-like appearance in the pre-disposed enfeebled plants, that over-exertion, sudden changes of weather and unusual exposure produced upon the consumptive patient. He drops away, dies suddenly, being the effect, mainly, of the pre-disposed cause. And is not the change so simultaneously noticed in the potato plant analogous? Every effect results from a definite cause, and I have explained to Mr. Barber what he will more fully understand when he makes a careful research with the microscope into the botanical condition and entomological connection which are developed and clearly revealed in the potato plant, from the attentive study of these three sciences combined. The former lays before us in clear vision the wonders of the two latter.

Dec. 6, 1859.

THE FARMER BOY.

#### DOSING ANIMALS.

The practice of daily or weekly dosing and drugging domestic animals is pregnant with good or evil results. Hence, it is an important subject—one that should interest every one who keeps only a cow or a pig. So, too, is proper treatment, in health and in sickness, important.

Every one who is at all conversant with the current literature of the day, often—very often—sees, “going the rounds,” such recipes as this: “Salt every day, and salt, ashes and sulphur once or twice a week; salt, ashes, and hen manure once or twice a week,” &c., &c., varied somewhat in their proportions, and all for the benefit of animals that are already in the enjoyment of good health, and have been for a long or short time, and are likely to continue so, for aught that is known. Now, in short, I am opposed to all such routine courses. This feeding salt, ashes, sulphur or charcoal to animals as much as they can be induced to eat of them, or giving condition powders, corrosive sublimate, or any of the et ceteras daily, weekly or monthly, is, I believe, almost always sooner or later injurious, in each and in every instance, where the patient or patients are in a good healthy condition. As an illustration, I will give one out of many, that might be adduced if it were at all necessary.

A friend—a physician—in commencing business, bought a fine roadster, and naturally—and rightly, too—wishing to keep him sound, and looking sleek as he then did, was led to read some upon the proper care and treatment of the horse. Reading, I think he told me, in “Youatt on the Horse,” the beautiful effects of corrosive sublimate, he commenced giving it, as directed, to him, and there was a gloss that “was a gloss” easily to be seen on that doomed horse, for a while. But stop, or rather watch him for a while!

Before a year he coughed. The corrosive sublimate was changed for cough medicine, condition powders, carrots, apples, potatoes, &c., but with his favorite drug in the interim; yet still he would cough just when he wished to, and that was quite often, while that hitherto beautiful coat began to fade, and look sickly.

About this time, he rode with me a few miles with my little nag. He wished to know what I

gave her to keep her in such sound health, and fine condition. I told him that she had no medicine of any kind, and never had, except once when she had a severe attack of the “horseail,” before one year old, and even this she almost entirely refused. He continued to change his tactics, and dose, dose away for some six months longer, with but little improvement, and then went into another county, and exchanged him for a fresh one. But whether he has learned, in this his first voyage, to let well enough alone, I know not, because he is now in Aroostook county.

Finally, I have seen somewhere, with pleasure, that Dr. G. H. Dadd, has raised a warning voice against this continual dosing, which is extolled to be so necessary and valuable by some. Why should we give man or beast a poisonous drug when in health, to keep him in health? Does not the undue action of the system to rid itself of this deadly foe, at once produce a deteriorated or lowered condition of the original healthy system? Is there not, then, an injury inflicted that we are not able accurately to estimate, or repair entirely, notwithstanding it is often said, when a sick man has seemingly recovered, “he is good as new,” and so of the horse or ox?—O. W. TRUE, in *American Stock Journal*.

#### LIVE BRAVELY.

The world is half darkened with croakers  
Whose burdens are weighing them down;  
They croak of their stars and ill-usage,  
And grope in the ditch for a crown.  
Why talk to the wind of thy fortune,  
Or clutch at distinction and gold?  
If thou canst not reach high on the ladder,  
Thou canst steady its base by thy hold.

For the flower thou hidst in the corner  
Will as faultlessly finish its bloom,  
Will reach for a sparkle of sunshine,  
That clouds have not chanced to consume.  
And wouldst thou be less than a flower—  
With thought, and a brain, and a hand?  
Wilt wait for the dribbles of fortune,  
When there's something that these may command?

There is food to be won from the furrow,  
And forests that wait to be hewn,  
There is marble untouched by the chisel!  
Days that break not on the forehead of June.  
Will you let the plow rust in the furrow—  
Unbuilt a house or a hall?  
Nor bid the stones wake from their silence,  
And fret as if fretting were all?

Go, learn of the blossoms and ant-hill;  
There's something thy labor must give,  
Like the beacon that pierces the tempest,  
Strike the clod from thy footing, and live.  
Live—not trail with thy face in the dross heap,  
In the track of the brainless and proud,  
Lift the cements away from thy manhood,  
Thou art robbing the dead of a shroud.

There are words and pens to be wielded,  
There are thoughts that must die if unsaid;  
Wouldst thou santer and pine amid roses,  
Or sepulchre dreams that are dead?  
No, drag the hope to the pyre,  
Dreams dead from the ashes will rise;  
Look not down on earth for its shadow,  
There is sunlight for thee in the skies.



### THE TREES OF NORTH AMERICA.

The officers of the Smithsonian Institute, some time ago, engaged the services of Dr. J. G. Cooper, to prepare an essay upon the Sylva of the North American Continent. The result of his labors has been published in pamphlet form by the Institute, and the following facts are taken from the document:

There are no less than one hundred and thirty-four different species of trees on the continent of North America, including a vast variety from the rich tropical sylvan products of the Mexican districts, to the stunted pines that pass their unseen sturdy lives among the snows of Labrador. The tallest trees are found in California, where is the giant redwood—*Sequoia gigantea* of Torrey, or the *Wellingtonia gigantea* of Hooker—which attains the prodigious height of four hundred and fifty feet from the ground, about half as high again as Trinity church steeple. The yellow fir, or *Abies grandis*, which grows in Oregon, is also a very respectable tree, often reaching the height of two hundred and fifty feet. In Massachusetts they have the whitewood poplar, of one hundred and forty feet in height, and the same State also possesses a *Zanthoxylum Americanum*, which is more familiarly known as the tooth-ache tree. In New Jersey there may be found a species of white beech one hundred and twenty feet high. After these it is quite a contrast to descend to a prickly pear tree of Mexico, which, though rejoicing in the gorgeous title of *Opuntia Athantherocarpa*, is but six feet high. The *Prunus Subcordia*, a kind of plum tree, is another sylvan dwarf, and the *Juniperus Pachyphloea* is also an arboreal pigmy, neither of those Mexican trees being over ten feet in height.

The Gulf of Mexico has an important effect upon the forest growth in the United States. It is from the gulf that many rain storms proceed, and they are blown easterly by westerly winds, until they fall generally before reaching the Ohio. Thus, as they do not reach the Illinois region, that district is deprived of its fair share of rain. Without moisture, there can be no trees, and that is the reason that Illinois and Michigan abound in treeless prairies that are not to be found in places where the rain storms from the gulf fall. In Texas, where these gulf storms do not travel, the moisture and consequent vegetation and sylva grow less and less as we proceed westward, until we come into the great deserts that exist in the Dakota regions.

For the New England Farmer.

### COMMON SENSE.

I have often heard the observation that common sense is the best of all sense. I was reminded of this on reading the remarks of your Hollis correspondent, "On the profits of farming." Like views have often occurred to me, on looking about among the farmers whom I have known for the last fifty years. Generally speaking, those who have been industrious, limiting their attentions to their own business, letting alone all manner of speculation, have succeeded well in the world. The great secret of success is, to have something as useful to be done, at all times, in winter, as well in the other seasons of the year. Never hire oth-

ers to do what can be well enough done by yourself.

Every farmer needs a workshop, well supplied with tools. All his boys should be instructed in the use of them. He should know how to mend his own carts, plows and carriages, and do this at times when he cannot advantageously work in the field. He should have "a place for everything, and everything in its place." This motto, I remember to have seen conspicuously posted about the buildings of one of the best conducted farms I ever saw. This was well, thus to remind all of their rule of action, if it could not otherwise be impressed on their memory; it would seem better to make it a part of their nature.

"As to pulling weeds, you had better let them alone, in a dry time;" I do not accord entirely with this rule laid down by friend Emerson. I would sooner say, let there be no weeds to be pulled; or, if there be any, let them be removed at earliest opportunity, in the most careful manner. Weeds, like vices, even the very common vice of smoking tobacco, pollute all around. They can not be too soon eradicated. P.

December 3, 1859.

### EXTRACTS AND REPLIES.

#### BUTTER IN WINTER.

I would like to inquire through the *Farmer* the mode of making butter in cold weather. I have not made butter since the middle of last month—the last that I churned I kept the dasher going 14 hours, and had to give it up. In warm weather it comes in from 5 to 15 minutes. I have put the churn in hot and cold water, alternately, and have tried it in a warm room and cold room, but all to no purpose. The cream, after churning so long, is so rancid that it cannot be used for any purpose whatever. My cows are fed on the best of hay, have potatoes once a day, and occasionally a few ears of corn. If you or any of your correspondents can inform me how to make the butter come, you will confer a favor not only on me, but on many of my neighbors. E. LEONARD.

New Bedford, 11 mo., 27th, 1859.

REMARKS.—Butter was made in our family through the whole of last winter from the milk which five or six cows gave. The milk and cream stood in a cellar where the temperature was *uniformly* at about 62°; and when the cream was removed in order to churn it, it was kept at as near 62° as possible. Ten to fifteen minutes would bring the butter, which sold in market for thirty cents a pound. Cream should not be kept more than three days, we think, and it seems to us that its temperature should be nearly uniform all the time it is being gathered. We hope those who are successful will help brother Leonard out of his difficulty.

#### THE LAWTON BLACKBERRY.

Your subscriber from New Bedford is no doubt correct in his belief that the Lawton Blackberry can be successfully cultivated in Massachusetts. I have this last season, within three miles of your place in Concord, from three-fourths of an acre,

gathered eighty bushels; my crop would have amounted to fully two hundred bushels, had not one acre of plants been winter-killed; they are more liable to be killed by a very severe winter, like the last two, than the native vine.

In any part of Massachusetts where the native blackberry flourishes, upon land that will grow seventy-five bushels of corn to the acre, one hundred bushels of Lawtons will be no more than an average crop. With some experience in the cultivation and sale of the berries, were I to set two acres, one would be Lawton and the other Dorchester. Among the vines which I set three years ago, were one hundred Newman's Thornless, and, so far as I have proved them, they are utterly worthless.

The Dorchester, unless the Lawton is fully ripened, is much the best berry, but for a table berry and for cooking purposes, when fully matured, the Lawton has no superior. S. H. I.  
*Lincoln, Mass., Nov., 1859.*

REMARKS.—We are glad to learn that the Lawton succeeds so near us, and should be glad to know whether any of S. H. I.'s ripened so that those who only eat sweet fruit would have relished them? We have not, nor have our neighbors, been able to accomplish this.

#### LAND PLANTED WITH POTATOES THAT HAD BEEN PASTURED WITH HOGS.

Have any of your readers planted land with potatoes which had been pastured with hogs the previous season? What was the result? I have about two acres upon which a large number of hogs have run this summer, and I should like to know what crop I can raise next year to the best advantage (corn excepted, it being too much shaded by trees for that crop.) Any reply to the above will be very thankfully received by a  
*Worcester, Nov., 1859.* YOUNG FARMER.

#### TOOLS FOR DRAINING—TURNIPS AND POTATOES FOR CATTLE, MIXED WITH WHEAT AND CUT STRAW.

I have been draining this fall, and have concluded there should be some easier way to make a ditch, than with a shovel and spade, and my object now is, to inquire if there is an implement in use that will, with horse or steam power, make and clean a ditch, two and a half feet deep, by once passing over the ground?

A few winters ago, I fed four oxen and four cows on wheat and oat straw, from December to April; at the same time I gave the oxen one bushel of English turnips, divided among the four, and one bushel of potatoes to the four cows. They all went through the winter as well as I ever had any on good hay. The oxen went through on the turnips as well as the cows did on the potatoes, and I consider the turnips and potatoes as good as can be provided for winter feed—say one bushel to eight young cattle each day.

HORACE HOLLISTON.

*North Montpelier, Vt., 1859.*

REMARKS.—Prof. Mapes, Editor of the *Working Farmer*, N. Y., invented and constructed a ditching machine several years since, and Mr. J.

J. Thomas, one of the editors of the *Country Gentleman*, also devised and constructed one, but we have not seen either of them in operation. We learn that there is a new machine about to be introduced for this purpose which will be cheap and effective, and that a machine for making pipe for draining purposes, will soon be forthcoming. The pipe-making machine, we understand, will be so compact and portable as to be easily removed from farm to farm where clay is found, while at the same time the price will be so moderate as to make it an object for a person having ten to twenty acres to drain to purchase one.

#### CANADA PEAS—PIN WORMS.

MESSRS. EDITORS:—Will you allow me to inquire through the *Farmer* the value of Canada peas, as compared with corn, for feed for cattle, horses and swine? Would they do well ground and fed with cut hay or straw? I wish to say, for the benefit of all interested, that India wheat is the best remedy for pin worms in horses that I have ever tried.

ADIN BUGBEE.

*Snow's Store, Vt., Nov. 25, 1859.*

*For the New England Farmer.*

#### TRANSACTIONS OF THE MIDDLESEX AGRICULTURAL SOCIETY

FOR THE YEAR 1859.

By the kindness of an unknown hand, am I favored with this neatly printed pamphlet of 40 pages. It is indeed "*multum in parvo*." What is wanting in extended detail of culture, such as is found in many other society publications, is made up by condensed general views of culture, and keenness of wit. I rejoice to find a voice from the pulpit in aid of the farmer. I have long been of the opinion, that if our clergymen would appropriate one-half the time now wasted on antique theology, in familiarizing themselves with the culture of the garden and the field, and teaching their supporters how this can be most advantageously done, they would do a good service in their day and generation.

I was particularly pleased with the remarks on education in our schools, contained in this pamphlet. I hope the intelligent President of this Society will endeavor to have this preaching developed in practice. I know of no one who can do more or better than he, if he should undertake it.

*December, 1859.*

ESSEX.

SEA WEED FOR WADDING.—The Paris papers speak of a new industry that has arisen in France from the exigencies of the times, and one which is destined to supply one of the necessities of that rage for destruction which is becoming so apparent. Government has ordered the systematic gathering of the sea weed which is washed on the rocks of the coasts of Normandy and Brittany to serve as wadding for artillery—it being found to answer the purpose admirably—keeping the iron cool, and not liable to ignition—like the cotton wad hitherto in use.

*For the New England Farmer.*

### RURAL SCENES, OCCUPATIONS AND PLEASURES.

MR. EDITOR:—I am well aware, that I cannot do justice to this interesting subject in the brief space allowed in the crowded columns of a newspaper; yet, without taking up too much of your valuable room, I would like to offer a few remarks upon this subject for the consideration of those who are anxious to leave their paternal homes in the country for a residence in the city.

It is freely admitted, at the outset, that city life has some advantages which country life has not. These need not be particularly pointed out, as they will readily occur to every one. Yet, after all, city life runs quick, is giddy, intoxicated, high-minded, and under continual excitement. Much is condensed into little time and space. Men live, as it were, under a high-pressure system. The candle of life is kept in a continual blaze; and it frequently goes out at a very early period.

But country life, on the other hand, has its own peculiar advantages, and its scenes, its occupations, and its pleasures, are favorable to health and reflection, to long life and true enjoyment. It is no part of my present object to set up city and country as rivals; they are both, perhaps, necessary to make human existence pleasurable. This is almost self-evident. Whence come the motives to change from city to country, and from country to city, among those whose circumstances or occupations do not bind them to one locality? Yet, I would ask all those who are so anxious to leave the paternal roof in the country for some garret-loft in the city, to tell me, how they account for that rush of cooped-up men and women—mechanics, artisans and merchants—to the green fields of the country, to the mountains, hills and valleys, and wild woodland scenes, which invariably takes place when a holiday is proclaimed? It is instinct fleeing to the balmy breath and soothing influences of country scenes, to revive the powers that have been impaired, and heal the bruises that have been inflicted by the artificial mode of city life.

The scenes, occupations and pleasures of rural life are too well known to need a particular description. It is sufficient to say, they are the scenes of every day life, and of every day pleasures; such as fill the mind with joy and gladness, and lift the soul to God. They are the scenes, occupations and pleasures which all parts of the country present, and from which thousands of our city friends yearly drink in delicious, untainted pleasure. For they leave the scenes of their business and of profit behind them, to ramble where the breezes blow, and amid the bracing mountain air, where many an invalid has picked up health, and received, as it were, a new lease of life. But, as they do not engage in the occupations of country life, they cannot enjoy all its pleasures. There is a real pleasure in rural occupations and pursuits, which city life, with its competitions, anxieties and continual excitements, cannot yield. There is a real satisfaction of mind in beholding the fruits and productions of one's own industry and labor, and in witnessing the blessings and bounties of Divine Providence. The scenes, occupations and pleasures of rural life, are all alike healthful to the body, and invigorating to the mind, and conducive to human happiness.

The country may be said to be one great book, which is open to the eye of every one who can read and understand it. It has a language of its own, peculiar to itself. There are passages in it of exquisite beauty and unparalleled grandeur. We read its beautiful passages when we gaze upon the fair landscape, reposing under the sunny sky of a summer day; when we listen to the sighing breeze among the leaves of the forest; when we hear the warbling of the songsters of the grove, making the air vocal with their music; when we listen to the gentle murmurings of the running stream, as its limpid waves ripple over their pebbled banks, the sweetest of all nature's music. The scanning of such passages imparts a pleasure to every thoughtful mind. And yet many, very many, in their hot haste to become rich, and anxiety to cut a figure in the world, are willing to relinquish all these pleasant and quiet and healthful scenes and employments for the busy mart of trade and traffic; to be covered all over with the dust, and to be surrounded by the hubbub, the perplexities and the temptations of city life! And all this for the sake of acquiring riches and honorable distinction in the world, which nineteen-twentieths fail of obtaining.

JOHN GOLDSBURY.

Warwick, Mass., 1859.

### CONDENSED MILK.

The Hartford, Ct., *Homestead*, gives a detailed description of a "milk-factory," which a Mr. Borden, has put in operation "in one of the wildest gorges of the Litchfield hills."

"The long and short of the whole process is, that fresh milk is received night and morning, and condensed to one-fourth its original bulk by evaporation, and in this shape, that is, looking like very thick cream, it is sent to market, requiring only to be diluted with as much water as has been removed from it, to be as perfect and excellent milk as it was at first, and in fact, a little better, as we will explain: The cost in market is 25 cents per quart, or 6½ cents for a half pint, which by the addition of three half pints of water will make a quart of milk decidedly better, more healthy, and less watered than the milk bought of milkmen in our cities; and capable, after being diluted properly, of answering all the purposes of the best milk. The cream will rise as usual, and butter may be made, and the milk will show itself possessed of all the properties of fresh milk."

The writer regards it as a most valuable discovery,—a saving of three-fourths of the expense of transportation is made, and the milk thus prepared remains sweet so long that it may be sent from Connecticut to New York or Boston, and arrive in a condition to keep longer than milk fresh from the cow.

TOO MUCH GRAIN.—Such is the heading of an article in the *California Farmer*, in which the editor, after admitting that they "have an abundant harvest the present year—twice, and thrice, perhaps, the wants of the State," says it is unmanly for the farmers to murmur, as they do, be-

cause of too much food. Grain-growers are advised to ship their supplies abroad, and at such prices as they can get. The same paper describes the "First Woolen Factory in California," just completed in San Francisco. The factory is one hundred and twenty-five feet long, fifty feet wide, and two stories high, and "in all its arrangements for working-power is equal in excellence to any factory in the Atlantic States." The machinery, and the operatives of such establishments will make a better market for the farmers' surplus than can be furnished by the exporting merchant.

#### USEFUL OBSERVATIONS.

He that has eyes to see, may perceive an immense amount of useful knowledge scattered all along his pathway through life, and if notes or memoranda were made of such observations, and sent to such papers as the *Artisan*, thousands would be grateful for the instruction.

As an example, see how few machinists know the proper method of adjusting leather belting. The common method is to place the flesh side of the leather upon the pulleys; for what reason we know not, unless it is supposed to look neater, or to increase its traction.

But in either case a great mistake is the result, and leather belting should never be so worked.

Always place the flesh side of the belt outward, because it is the strongest, and should not be worn away upon the pulleys. It is estimated, by those who have tried the experiment, that the belting thus run will last twice as long, and perform quite as efficiently.

Another example we might give, which thousands of workmen, who use the necessary article of glue, may think valuable. All that is necessary to keep glue sweet and free from that offensive smell which good glue will acquire when left to stand, from time to time, in the pot, is to use a stirrer of zinc in place of wood, or to keep a small piece of zinc in the bottom of the pot, or, when steam is used for heating it, to make the pot of zinc.

Millions of such items can be given by men of observation, and we shall take great pleasure in re-writing them, giving the punctuation, etc., as well as publishing them, if we are furnished with the facts.

Books and papers are sometimes very instructive, but few of these give this kind of information, and this is what artisans most desire.—*Cincinnati Artisan*.

**A COW SUCKLING LAMBS.**—A cow belonging to Mr. Thomas Hislop, of West Oxford, calved last spring. Her calf was taken from her at five weeks old. A fortnight afterwards an ewe died, leaving three lambs. As there was danger of the lambs also dying, the owner took one of them, and held it to the cow's teats. Next morning on going to milk the cows, all three lambs were found sucking the cow. Another lamb was placed with the cow, and she has suckled all four ever since. They follow her wherever she goes, and she protects them from dogs and other animals that attempt to molest them, showing the same affection for them as if they were her own progeny.

#### PEAT, MUCK, AND COMMERCIAL MANURES.

We have before us a copy of the reports made to the Connecticut State Agricultural Society, in 1857-8, by Prof. SAMUEL W. JOHNSON, Chemist to the Society, and Professor of Analytical and Agricultural Chemistry in Yale College. We have been greatly interested in these excellent reports. The analyses of various fertilizers, made by a person of eminent ability for the task, and who undoubtedly stands beyond the influences sometimes thrown over the analytical chemist, must be of considerable importance to our progressive farmers. The Essays on Manures are critical and exact, noticing nearly all the forms in which manures are used in this country. That which treats of *Peat* and *Muck* is of special value, as our people do not yet properly appreciate muck as a manure, and so long as this material is so abundant and accessible, it is important that its true value should be every where known. Below are some of the heads discussed in the Essay: What is Peat? The condition under which Peat is formed. The different kinds of Peat. The chemical composition of Peat.

After these Prof. Johnson notices the characters that adapt peat to agricultural purposes—

1. Its remarkable power of absorbing and retaining water, both as a liquid and as vapor:
2. Its power of absorbing ammonia:
3. Its action in modifying the decay of organic (that is *animal* and *vegetable*) bodies:
4. Its effect in promoting the disintegration and solution of mineral matters, (that is, the *stony* matters of the soil:) and
5. Its influence on the temperature of the soil.

When these points are well understood, most farmers will have the means at command of greatly increasing the productive power of their soils. Prof. Johnson has our sincere thanks for this new acquisition to our knowledge in regard to manures.

**AGRICULTURE IN TUSCANY.**—The correspondent of the *Newark Advertiser* gives the following account of the mode of gathering the harvest in Central Italy:

To-day—in this nineteenth century!—one sees here sunbaked women and girls, cutting, or hacking, rather, the grain with ill-shaped, twelve-inch sickles, and beating it out, sheaf by sheaf, on a stone, with the hand, aided only by a rough stick. Threshing instruments are almost unknown in Tuscany: and then, what a winnowing, without machines, follows the reaping! It is done in this wise: The grain heaped up on the ground in one place, is thrown by shovelfuls through the air to another place, the wind being winnow, and supposed to blow away the chaff as it passes. One watches this behind-the-times operation with his teeth on edge with the sense of gritty bread, and the prospect of eating his "peck of dirt" in Italy before him.



A PAIR OF CRESTED DUCKS.

Mr. BEMENT, of Albany, author of the *American Poulterer's Companion*, says these ducks are a beautiful and ornamental variety. They are of all colors, having in fact no other common features. He has had them pure white, black, and mixed, black and white, with large turbans or top-knots. The white are considered the most beautiful, as they have yellow legs and bills.

In speaking of this duck, Mr. Latham says—"This inhabitant of the extremity of America is of the size of the wild duck, but is much longer, for it measures twenty-five inches in length; a tuft adorns its head; a straw yellow, mixed with neatly colored spots, is spread over the throat and front of the neck; the wing blue beneath, edged with white; the bill, wing, and tail are black; irides red, and all the rest of the body ashy gray."

**CRANBERRY CULTURE.**—Obed Brooks, Esq., of Harwich, has carefully compiled a statement of the cranberry crop of the towns of Harwich, Brewster and Dennis, for 1859. An aggregate value of \$23,622 is no small income to the families owning these cranberry meadows. We can give no estimate of Barnstable. A large number of persons severally own small lots; but the aggregate must be a number of thousands of dollars worth. Mr. Solomon Hinckley, residing in our immediate vicinity, sold to the amount of \$740;

and Dr. Jenkins, of West Barnstable, \$600. The cranberry culture is now attracting much attention in most of the Cape towns, and very numerous lots of ground are being prepared for the vines.—*Barnstable Patriot*.

#### COMMONWEALTH OF MASSACHUSETTS.

##### AGRICULTURAL DEPARTMENT.

*State House, Boston, Dec. 7, 1859.*

DEAR SIR:—The Legislature, by the Act of 1859, chap. 203, proposed to offer some encouragement for the establishment of Farmers' Clubs in the various towns of this Commonwealth, and, to some extent, to aid those already established. The Committee of the Board appointed to make provision for carrying the aforesaid Act into effect have instructed me to say that if there is any desire among the farmers of your town to establish such a club, and to have the aid of any suggestions that might be offered by an agent employed by the State Board of Agriculture, it would be proper for them to hold a preliminary meeting and decide upon some definite time and place when and where they would like to have such an agent; will you please inform me of it at an early day, stating the time fixed upon, which should be sufficiently long after the date of your letter to give time for the necessary preliminary arrangements.

In cases where a Farmers' Club is already established, and is in operation at the present time, and desires to avail itself of the aid offered by the State, a copy of the constitution or form of organ

ization, the number of members, the general course pursued, whether it be by discussions, lectures, town shows, or otherwise, the nature of the assistance which would be most acceptable to the members of the club, and all other necessary information, should be forwarded to me, when, if it is practicable, the club may be furnished with copies of the Reports of the Board, and with one or more agents to take part in the discussions or lecture, according to circumstances.

Please state explicitly, therefore, if it is proposed to ask any aid, what is wanted and on what special subject it is desirable the agent should speak, the time when the meetings will be held, &c.

Any club which may be formed, or any club now in existence which may wish to avail itself of the provisions of the above named Act, will be expected to conform to said Act by making the required returns at the time specified, and to aid the Board in collecting facts and statistics relating to agriculture if it should hereafter be desired.

Very truly, your obedient servant,

CHARLES L. FLINT,

Sec. of the State Board of Agriculture.

#### SHEEP HUSBANDRY.

At the weekly meeting of the *Concord Farmers' Club*, Dec. 1, 1859, an interesting discussion occurred on *Sheep Husbandry*. But few of the members of the club have had experience in this department of farming. The subject, however, is arresting the attention of farmers in the eastern parts of the State. It is believed that sheep may be profitably raised for their mutton, and that in connection with this they may be made the means of renovating our exhausted and bush-covered pastures. We are glad to learn that the Trustees of the Middlesex Agricultural Society have offered a premium of fifteen dollars for the best flock of not less than twenty sheep, that shall have been owned in the county six months. We hope the enterprising farmers in that county will test the profit of raising sheep, whether for wool or mutton, and the offset of keeping them upon their pastures. Through the kindness of Dr. JOSEPH REYNOLDS, the able Secretary and Reporter of the club, we have obtained from the records some of the remarks which we give below. The first four persons who speak are appointed as leaders at a previous meeting, so that delay never occurs in opening the discussions.

Mr. SIMON BROWN remarked that he was familiar with the care of sheep in his youth. He had been obliged to sit up night after night, in cold weather, to take care of lambs, because they were dropped too early. The first broadcloth he ever wore, was made from the wool of sheep which he had assisted to raise. Sheep raising was formerly profitable, but it had been discontinued among us, chiefly on account of the losses occasioned by dogs. He had been informed that in the adjoining county of Essex, there were only 500 sheep, but there

were 3,500 dogs! A good many persons are now entering upon the business. A new spirit has been awakened upon the subject. Sheep have been improved in size and productiveness, as much as, and perhaps more than, cattle. Fifty years ago, a quarter of mutton in England, that weighed 15 or 20 pounds, was thought large. Now a quarter of mutton is frequently seen weighing 50 or 60 pounds. One weighing 60 pounds was recently exhibited in Boston market. If there is a demand for mutton, sheep raising must be profitable. He had no doubt that there would be a demand for all the good mutton that might be raised. He spoke of the effect of keeping sheep in reclaiming pastures. He knew a tract of land in Plymouth County, that was formerly so covered with briars and rose bushes, that it was almost impossible to walk through it. He saw it last fall, and it was a beautiful green pasture, with a smooth surface, and not a bush or briar upon it. It had been reclaimed by the use of sheep alone. If he were going to keep sheep, he should select good, healthy, well-favored animals, and would never confine them to one place, in doors or out. They should be allowed to run in and out of the barn at will, all winter. In clear, cold weather, when the thermometer was below zero, they would lie on the litter in the yard. When it was damp, even if warm, they would lie in the barn. They should be allowed to follow their instincts in this respect. His father's barn had racks all around the walls on the inside. The hay, mostly clover, was let down from above, and troughs were furnished under the racks for roots and beans, and to catch the clover heads if any fell through the racks. Diseased sheep must be immediately removed from the flock.

Mr. E. WOOD, Jr., remarked that he had no experience upon the subject, but he thought it as desirable to keep a variety of stock, as to raise a variety of crops. The profit would depend upon circumstances. Sheep might be profitable on lands that were easily fenced, and not upon other lands. He has a large pasture, much grown over, where he has been mowing and burning the bushes. He has mowed over 50 acres the past year. This pasture is fenced on two sides with heavy stone walls. These walls he proposes to top either with poles or vines, and to put on sheep the next season. He thinks, from what he has seen, that he can keep 50 sheep, and after two years, as many cows as he now does, with the sheep, and expects to find sheep that may be kept by common fences. He has seen a flock of one hundred, that yield five pounds of wool to a sheep, that do not get over a three foot rail. They are destroying the bushes and weeds, and bringing in the white clover. This is the effect we most need.

Mr. JAMES B. ELLIOT, from Keene, N. H., was present, and favored the club with some interest-



ing remarks. He is engaged in sheep husbandry, and has been for five years. His sheep had become breachy. When this is the case, the best way is to change the entire flock. He had recently been looking among the sheep in Vermont, and had purchased a hundred, at the average price of five dollars. He expects they will yield from five to six pounds of wool each. He has been to Albany, and seen the long-wooled sheep. They do best, as he is informed, in small flocks. He wishes to keep a pretty large flock; has one pasture that will carry 300, and another that will carry from 150 to 200. Sheep require about one acre each. If the land is very rocky, they require more. Large sheep require more. He has concluded to keep fine woolled sheep. Many of the farmers on the Connecticut are now feeding all the corn they can raise to their sheep. They buy wethers, and put them up about the 1st of December, and give them cob meal, and oats, all they will eat. In March they shear them, and send to market in the cars, alive. They will weigh from 150 to 170 pounds, live weight, and bring from five and a half to seven cents per pound. In Walpole, N. H., they are feeding 4,000 this winter. The farmer may fat two sets in the fall and winter. Mr. Johnson, of New York, fats all the year round. The manure from sheep is better than that from cows. From 21 sheep, he made 10 loads of the best manure he ever saw. Leaves, or some proper absorbent, should be placed on the bottom of the yard, and litter used as required. This manure is excellent to mix with muck. It costs about forty cents, in New Hampshire, to pasture a sheep from the 10th of April till the 20th of November, or till they are "snowed up," and about \$1.10 in the winter. A sheep requires about two pounds of hay, daily. He feeds with hay twice a day, and once with roots. Sheep require a plenty of fresh air, and running water. Some keep them without water, but it is not so well. Sheep will destroy almost every kind of bushes, except pines and alders. Some sheep are easily kept within ordinary fences. Others will learn to jump over almost every fence. He related an anecdote of one man who had kept a flock of sheep 29 years, and never knew but one get out of the pasture. Mr. E. thought small mutton quite as good as large, but that, as most farmers in this section would keep only small flocks, the long woolled sheep might be the most profitable here. The Cotswold and South Downs would yield from five to six pounds of wool. This wool, although it does not fetch quite as much as fine wool, is in demand for certain kinds of manufacture. He said that a man of his acquaintance in Vermont realizes \$1000 per year from 200 sheep.

We think these statements from an intelligent, practical man, who is himself engaged in the business, will not be without interest to many of our

readers. Several other gentlemen of the club spoke upon the subject, and were listened to with interest.

*For the New England Farmer.*

#### SEASON AND CROPS IN IOWA.

Our western autumn is departing as quietly as a lamb. Early in November, we had a severe attack of winter of two or three days' continuance; with this exception, it has been mild and dry throughout.

The sharp frost, September 1, together with the severe drought preceding and following, reduced the corn crop nearly one-half from what it promised early in the season. The cob is of the usual size; but the kernel is shrunk so much that it requires two full bushels of ears to make one of corn. One and a half of ears to one of corn, is, I believe, the usual proportion.

The wheat also failed to realize the expectation of farmers, in amount, by about one-third; though of very good quality.

Potatoes are very small, and not very numerous, but entirely free from rot, and of very good quality, even the smallest.

Buckwheat was completely ruined by the frost, and the sorghum greatly damaged, both in quantity and quality. There was a large amount of the latter planted; but it does not prove a very profitable crop, as yet.

While our friends at the East are rejoicing in the full tide of prosperity, we are still obliged to wait for the "good time" to come. Many of our farmers, who were badly in debt, are not only unable to extricate themselves, but scarcely able to pay their interest, from the in-gatherings of the year.

Nevertheless, we kept Thanksgiving with you, and the other twenty-five States, on the 24th inst. And very much do we find to be thankful for, although still depressed with debt and short crops. We still continue to have excellent health. Disease, what little there is, assumes a very mild form, more so, I think, than in Massachusetts. The scarlet fever, which has lingered around us for months, is so mild and tractable as to be managed in most cases without medicine. Very few have died of it; none, I believe, who trusted to water applications and good care. M. R. C.

*Tipton, Iowa, Nov. 30, 1859.*

**POINTS OF COWS.**—Mr. A. L. Fish, a dairyman of Herkimer County, N. Y., gives in the *Little Falls Dairyman's Record*, some observations on this subject. He says:

"I have never known a cow, with soft, fur-like hair and mellow skin, appearing yellow and gummy at the roots of the hair when parted with the hands, that was not a good butter cow, and when fattened, would mix tallow well with flesh. Instead of heavy head, horns, neck and shoulders, and comparatively light hind quarters, which is characteristic of the opposite sex, she should show an opposite design, by a feminine countenance, light head, neck, and shoulders, widening backward from her chest to the loin and hind-quarters."

*For the New England Farmer.*

# **WHAT BUILDINGS ARE NECESSARY FOR A FARM OF ONE HUNDRED ACRES?**

This is a standing question with the farmers of the country, and with your permission, I will give an outline plan of what I consider an appropriate block of buildings, with some notes upon the manufacture of manure for the cultivation of one hundred acres, and the restoration of an exhausted soil, to a state of primitive fertility.

The size and style of the house should correspond to the size of his family, and the taste of the farmer. Whether it be built high or low, I would so arrange the house as to bring the living-room to front the south and east, to secure the delightful influence of the sun in the room in the short days of winter; it promotes happy influences in the family, and cheers up the little birds and flowers, of which no house should be void. To extend this influence, I would build a bay window upon the south side of the room for the cultivation of flowers inside, with climbing roses upon the outside; say the Queen of Prairies on one side, and the Baltimore Belle upon the other; trained upon a neat little trellis to the roof, so as not to obscure the windows. This arrangement would unite pleasure and beauty to labor, one of the great ends of rural life, and which can only be attained by the union of these happy associations. It is folly to select the pleasantest room in the house to decorate and cultivate flowers in for your friends and neighbors when they call to see you, and consign the family to an obscure apartment as a necessity. Should you construct an ell to connect the house with the barn, be sure to not disarrange the above.

The barn should be 44 by 70, 18 feet posts, with a good cellar under the whole, for the manufacture of manure. For the latter purpose, haul together near the leanto door, a large heap of leaf mould from the forest, muck from the swamp, (keep a sufficient supply dug two years in advance,) leaves, straw, brakes, and other vegetable material for the filling of the trench behind the cows daily. In this trench commences the great work of redeeming an exhausted soil back to a state of normal fertility. In a barn of this size, we have a bay upon one side, the entire length, 14 feet wide; a driveway, 12; 1½ for crib in front of cows; lean-to floor under cows, 5½, running back to the trench, with a descent of 2 inches, to carry off liquid manures into the trench; 5 for trench and walk behind the cows, and a space 6 feet wide, to be partitioned off into pens for calves, and hospitals for cows at calving. The trench should be 20 inches wide, and 5 deep, level, and running the entire length of the leanto. Cows may be tied by stanchions, or with straps and chains; I prefer the latter, as it gives them more opportunity to rest. Reserve at one end of the leanto as much room as is necessary for stables for horses—depending upon the number used or wanted upon the farm. Hogs should be kept upon the manure in the cellar, to prevent fire-fang, or heating by rapid decomposition. Several weeks before slaughtering for pork, the hogs should be removed to small, clean pens, as they will take on fat more readily than when left to roam at large, and work in the manure.

Every practical, observing tiller of the soil, well

understands that no guano, superphosphate, or other nitrogenous, or highly concentrated manures, can restore to the soil the lost carbon, which has supplied a succession of crops with the essential materials which enter into the 14 elements of grain, fruit and grass. The true principle of agricultural science introduces another system, natural, plain, and altogether dissimilar. The forest must give up her store of carbon, (and she manufactures a large surplus annually,) so nicely elaborated by nature's laws as to fix its ammonia, and yet fitted for a powerful absorbent of liquid manures, with power to resist decomposition until brought in contact with the roots of plants. The swamps must yield up their store of vegetable wealth, the rich inorganic materials of surrounding hills and forests, to re-unite with the mineral salts too firmly fixed in the soil to be washed away by the annual rains. The organic laws of the universe established by the Creator, for the government of all the changes and formal conditions of properties of matter, whether in a crude mineral, organized or detached condition, are as uniform and unerring as the physical laws that govern the rising and setting of the sun. As the demand for carbon to form fat, muscle, cellular tissue, bone, brain, hair, and other portions of the human body, and at the same time keep up an animal heat of 98° night and day, is very great, we readily see why starch is so abundant in all plants used as food for man or beast. Starch contains a large amount of carbon, and the forests and swamps of the old States are holding the great bulk of carbon in store, to-day. We must increase the productiveness of rural labor by introducing into the present mode of farming more system in the science of vegetable physiology.

Every one knows that new land, land never subjected to cultivation, will produce, in abundance, all the crops which that country or district is susceptible of producing. Hence we are advised that the forests and swamps of any hilly country hold its vegetable wealth. Science now comes to our aid, and teaches us how to change a cold subsoil, into a warm, pliable, productive, surface soil. Practical experience has taught us that a good soil which produces 100 pounds of ripe wheat plants, loses but 15 pounds of its weight and substance by the operation, 85 pounds coming from the atmosphere. Science reveals to us why it is that in combustion, respiration and decomposition, an immense amount of organized matter is dissipated through the air—infused into the plants by atmospheric pressure, or gathered up by the falling dews, rains and snows, returned to the earth and the roots of plants, and thence by capillary attraction drawn into the kernel and elaborated as food for man and beast. It also gives the agriculturist power over heat, light, electricity, (positive and negative,) chemical action, air, earth and water, and enables him to grapple with repulsive elements—cold, subsoil water (corrected by drainage,) malaria, and other negative influences which have baffled the unskilful farmer for years past. Now that the soil, in the old States, has lost its natural productiveness, a thorough knowledge of vegetable science is indisputably necessary to enable the tiller of the soil to compete with those who till the rich fields of the virgin West.

A short time since a cargo of guano arrived in



New York, valued at \$60,000. Here is sixty thousand dollars' worth of phosphorus and nitrogen, (ammonia,) which stands in the same relation to the soil as \$60,000 worth of alcohol does to the tillers of the same, to stimulate them to more labor in changing the vegetable material around them into bread, meat and clothing. The soil should not be stimulated by phosphorus and ammonia, until it has been well supplied with all the inorganic elements necessary to furnish an increased amount of grain, any more than a man should drink alcohol upon an empty stomach. If a person will drink alcohol, drink it immediately after eating. Ground bones will furnish phosphorus, and copperas iron. The urine and hard excrements of the human species contain these forces in great abundance, and careless agriculturists are unaware of the enormous amount of these powerful fertilizers daily going to waste about the privies and slaughtering houses in large villages and cities. To make these more available, build a vat or cistern, immediately under one end of the cow-leanto, in the barn cellar, where they can be diluted in several times their bulk of water, and turned upon the manure-heap made as first mentioned. This collecting and compounding of carbonaceous and nitrogenous manures is *practically* agricultural science, and will supersede the necessity of purchasing commercial manures, at reckless prices, and rebut the charge that "farming is unprofitable." Add to this manure heap lime and ashes, and you have all the fourteen elements that enter into a kernel of wheat or corn.

LEWIS L. PIERCE.

East Jaffrey, N. H., Nov., 1859.

*For the New England Farmer.*

#### PRACTICAL PROOFS OF PROFIT IN FARMING.

MR. EDITOR:—I have noticed in your paper of late, discussions on "the Profits of Farming," by correspondents from different sections of the Commonwealth, in which they profess to give their own experience. Having no particular knowledge of these writers or their locations, I cannot judge of their statements. But I can tell you what I have witnessed in my own town, and will leave to you and your readers to judge whether or not farming is profitable here?

We have a neighborhood in which are situated thirty or more individuals, who own the lands they cultivate, say from five to twenty acres each, and so have owned them for twenty years or more. These men have convenient houses, with suitable buildings around, and families at home well cared for. Their only means of acquiring property is by the application of their industry to their land. Most of them have so managed as to lay up, besides maintaining themselves and their families, several hundred dollars a year. I cannot say how many hundred—because they are rather shy of informing the assessors on this point—but this I do know, there is no class of citizens among us more reliable than these cultivators of the soil.

We have others who branch out in manufactures, an trade—build large houses, and high work-shops—drive fast horses—and figure for a time as Directors of Banks, and they wind up

with a per centage—some thirty, some fifty, and some nothing. Now, Sir, my conclusion is, that the culture of the soil, in these diggings, is the most profitable.

*South Danvers, Dec. 10, 1859.*

*For the New England Farmer.*

#### PREMIUMS FOR MONSTERS.

BY JUDGE FRENCH.

What is the object of agricultural societies in offering premiums? It is well, occasionally, to go back and try our conduct by first principles. We should offer these inducements with some definite and commendable aim. Because a thing has long been done is not conclusive evidence, especially in this new and changing country, that it should always be done. Many a proposition is admitted as conclusive that a slight examination may show to be powerless. There was good sense in the reply of the simple gentleman, in a novel of Dickens, to the suggestion that his room was too small, not large enough to swing a cat by the tail. "Why," said he, "I don't want to swing a cat by the tail."

If we go on to the grounds of a so-called cattle-show, the most prominent objects that meet our eyes may, probably, be a balloon, a military company, a half dozen fire-engines with their men, and a race-course. Among the lesser attractions, may be noticed tents with the fat woman and small boy, the two-headed calf, and the learned pig, while the cattle and such every-day affairs occupy modest and retired positions in the rear. All this makes a very attractive show for the factory girls, and the horse fanciers and the children, and brings money to our purse, which, to be sure, must somehow be had.

Whether it encourages or discourages the farmer, is not the question now to be discussed.

If we look at the premium lists, we shall find the stereotyped offer of a premium for the largest crop to the acre of Indian corn, the largest crop of oats, and so on. No conditions are imposed as to the quantity of manure to be used, or the amount of labor expended. The premium is for the man who shall by any means produce the greatest quantity to the acre.

Now there may be various objects in offering premiums. If it is thought advisable to encourage experiments in the culture of some new crop, as of silk, or of beets for sugar, it may be well to give premiums by way of bounty to help defray the cost of the first attempts, and thus afford means of deciding whether the particular product can be cultivated with advantage in the particular locality. And the same encouragement may be properly given to the introduction of new breeds of stock.

Again, in a new country, there may be advantage in testing the capacity of the soil and climate

to produce large crops. It may satisfy the doubtful new settler, to prove to him that a hundred bushels of corn may be made to grow on an acre of land. But of what advantage is it to a Massachusetts or New Hampshire farmer to have it proved for fifty years in succession, that one hundred bushels of corn or thereabouts may be grown on an acre? The possibilities have been shown again and again, and whether the extreme limit be ten bushels more or less, seems of no importance.

The legitimate object of premiums in our old societies is the promotion of good husbandry. The true idea of good husbandry is the increasing the permanent income of our farms. It is not good husbandry to raise an enormous crop upon one acre, at an extravagant outlay of manure and labor. It is not good husbandry to produce a large crop for a single year, by a process exhausting to the soil. Good husbandry implies a system which may be permanent, a system which shall, through a whole rotation, through a series of years, produce crops sufficient to repay labor and the interest of capital, without depreciating the land.

We are speaking now of the old States. In new States good husbandry may be quite another matter. It certainly must be good husbandry for the pioneer to keep off starvation, and so to get his first crops with the least labor, even at the expense of his soil. He frequently borrows his purchase money, and must pay off the mortgage in two or three years, or lose his land; and if, in so doing, he plunders his soil, and sends away to market its elements of fertility in the shape of wheat and corn, he has a good excuse for his course.

This, however, is not, in fact, husbandry, good or bad. It is rather *mining*—digging up and selling the wealth which Nature has buried in the earth. Our forefathers have thoroughly performed this operation over most of New England. They took what the natural fertility of the soil, enriched by the ashes of the noble forests, could give them, and bequeathed to us the old heritage of bread for labor.

Is it not time to inquire for what purpose do we continue annually to offer and pay these premiums for monster crops of our standard grains from a single acre? Is it not a waste of money, and often worse? Do we know that the acre was, on the whole, judiciously cultivated? Do we inquire whether the rest of the farm was robbed, to manure this premium crop? Should not the award be to him who shows the best average of crops for a year, or for a series of years? Or to him who shows the largest profit, on the whole, of his farm accounts?

How is it as to animals? Is it really useful to encourage a breed of horses for the race-course or the trotting-course? Is the horse that can trot

"inside of 2.40" usually a valuable horse for any service? It may be profitable to produce enough of such horses to supply the demand of the "fancy" men who have money to throw away for the gratification of a low taste, but a 2.40 horse is a monster, not a regular product.

Some societies offer premiums for the *quickest* and best plowing by oxen, of a given tract. Now every farmer knows that oxen may be driven to plow a quarter acre, in much less than half the time they can be properly or profitably made to do the same work. You might as well award the premium to those which should walk farthest on their hind legs, as for this unnatural speed.

Again, we offer prizes often for animals and crops known to be unsuited to the locality. It would not promote good husbandry to award a premium for the best elephant or the best crop of cotton grown in New England. If the prize were large enough, Barnum, or somebody else, would carry it away in great triumph. Clearly we should not encourage by premiums the production of animals or crops unsuited to our soil and climate. When we become satisfied that a mode of culture of a given crop is and must be, unprofitable, let us drop the premium for it from our list. If, for instance, we are convinced that cranberries cannot be profitably cultivated on upland, let us discourage and not encourage the attempt. Perhaps that experiment has not been often enough repeated. By all means encourage its repetition, till the question is fairly settled.

These hints are thrown out to set other men thinking on the subject.

The principles upon which premium lists should be constructed in our old States are plain. They are—

1st. To encourage the product of crops and animals, of kinds and by methods which will prove profitable in the long run.

2. To encourage experiments in new products and methods, until reliable conclusions may be formed, and no longer.

3. To encourage exhibitions that shall tend to dignify agriculture in all its departments.

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AN APPLE TREE at Woodside, San Mateo county, California, is described as follows: Height of tree from the ground to topmost limb, 10 feet 6 inches; circumference of trunk (two feet from the ground,) 6½ inches; 269 apples on the tree at present, some 15 or 20 having fallen off. A fair average of the circumference of the apples is 9¼ inches. On another tree, one apple measured 14 inches round.—*California Farmer*.

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HOW TO CATCH RATS.—Rats are not the only species of tenants that outwit their landlords, they will sometimes shun all baits and traps. As many modes of getting rid of them cause them to

die on the premises, and taint the atmosphere, or are dangerous to human life, it may be well to remember that if the centre of a cage is sprinkled with a few drops of the oil of rhodium, (a species of convolvulus from the Canary Isles, fifty pounds of the root of which yield one pound of the essential oil, according to Lindley,) multitudes are irresistibly attracted to the spot, to be disposed of at will.—*Hall's Journal of Health.*

### JIMMY'S MOOWING.

The wind came blowing out of the west,  
And Jimmy mowed the hay;  
The wind came blowing out of the west—  
It stirred the green leaves out of their rest,  
And rocked the blue-bird, up in his nest,  
And Jimmy mowed the hay.

The swallows skimmed along the ground,  
And Jimmy mowed the hay;  
The swallows skimmed along the ground,  
And rustling leaves made pleasant sound,  
Like children babbling all around—  
As Jimmy mowed the hay.

Milly came with her bucket by,  
As Jimmy mowed the hay;  
Milly came with her bucket by,  
With her light foot so trim and sly,  
And sunburnt cheeks, and laughing eye—  
And Jimmy mowed the hay.

A rustic Ruth in linsey gown—  
And Jimmy mowed the hay;  
A rustic Ruth in linsey gown,  
He watched her soft cheeks, changing brown  
And the long, dark lash that trembled down,  
Whenever he looked that way.

O! Milly's heart was good as gold—  
And Jimmy mowed the hay;  
O! Milly's heart was good as gold—  
But Jimmy thought her shy and cold,  
And more he thought than ere he told—  
As Jimmy mowed the hay.

The rain came pattering down amain,  
And Jimmy mowed the hay:  
The rain came pattering down amain,  
And under the thatch of the laden train,  
Jimmy and Milly a cunning twain,  
Sat sheltered by the hay.

The merry rain-drops hurried in,  
Under the thatch of hay;  
The merry rain-drops hurried in,  
And laughed and pattered in a din,  
Over that which they saw within,  
Under the thatch of hay.

For Milly nestled to Jimmy's breast,  
Under the thatch of hay;  
For Milly nestled to Jimmy's breast  
Like a wild bird fluttering to its nest—  
And then I'll swear she looked her best,  
Under the thatch of hay.

And when the sun came laughing out,  
Over the ruined hay;  
And when the sun came laughing out,  
Milly had ceased to pet and pout,  
And twittering birds began to shout,  
As if for a wedding day.

**PHOTOGRAPHING ON WOOD.**—The power to secure a likeness of a person, animal, landscape, fruit or machine, upon an engraver's block, in an instant, without the tedious process of pencil and

crayon, has at last been accomplished. It has cost nearly as much to get the animal or article drawn upon the block, as to engrave it afterward. This is no longer the case. Any artist with a camera can now transfer a likeness to the wood prepared by a process recently invented and patented by R. Price, of New York city. It will be of great service to all classes having machinery, buildings or animals, which they desire engraved. There can be no inaccuracy result. A prepared block of the size desired can be forwarded to any daguerrean artist, and he can take a photograph after the animal or implement upon the block, which, returned to the engraver, insures an accurate representation of said article or animal.

### NEW PUBLICATIONS.

**GRASSES AND FORAGE PLANTS.** A Practical Treatise, comprising their Natural History; Comparative Nutritive Value; Methods of Cultivating, Cutting and Curing; and the Management of Grass Lands in the United States and British Provinces. By CHARLES L. FLINT, Secretary of the Massachusetts State Board of Agriculture. Fourth edition, with one hundred and seventy Illustrations. Boston.

We have spoken favorably of this work before; the copy before us is one of a new edition, revised and enlarged, and beautifully printed. It is a valuable work, and ought to be owned by every farmer who means to make progress in his profession, and get his crops at a profit.

**SMITHSONIAN REPORT FOR 1858.**—This volume contains 438 pages, mostly made up of scientific matter. The articles are:—Lectures on Astronomy; Memoir of Priestley; the Grasshoppers and Locusts of America; the Means of Destroying the Grasshopper; Vegetable Colonization of the British Isles of Shetland, Faroe and Iceland; on the Causes which limit Vegetable Species towards the North, in Europe, and similar regions; on the Distribution of the Forest Trees of North America; List of Birds of Nova Scotia; List of Birds of Bermuda; Report on Atmospheric Electricity. There are several minor articles of interest. The work is printed in Government style, and is altogether too mean a dress in which to clothe the productions of some of our most learned and useful men. If the power that controls this matter will send the manuscripts to Boston, they can be printed in a style that certainly will not be a reproach to the nation, for about one-half what such printing usually costs in Washington.

**GREENE COUNTY, N. Y., AGRICULTURAL SOCIETY.**—Before us we have the Address of the Rev. HENRY J. FOX, before this Society, in September last. His topic was, "Agriculture as a *Necessity*, as an *Amusement*, and as an *Art*," and he handled it well. Clergymen are our esteemed and valuable co-laborers in the great Art, and we feel under personal obligations to them for their timely and sound teachings. This address is an especially good one, and ought to be read everywhere.

## LADIES' DEPARTMENT.

### STALE BREAD, AND WHAT IT IS.

I don't like very stale bread—do you? My reason for disliking it is very much like the reason why I don't like Dr. Fell; your reason is really the same, but you probably cheat yourself into the belief that it is something else, namely, because the bread is so dry. Allow me to undeceive you. No bread is dry; bread just baked is nearly half water; and the stalest of stale loaves has not lost more than a hundredth part of this water.

The fact that bread contains nearly half its weight of water is surprising; but not so surprising as that your body contains a considerably larger portion—nearly three-fourths. It is "water, water everywhere, and (often) not a drop to drink." The flour from which bread is made, is dry enough, containing not more than sixteen per cent. of water; but it has a great tendency to absorb water, and in the process of baking it, absorbs it rapidly. The gum, which is produced from the starch of the flour in baking, holds this water firmly, and the gluten which forms a coating round every little hollow in the bread, steadily resists evaporation. Thus bread becomes moist and keeps moist, let it be never so stale.

But if stale bread be not dry bread, what is it? What makes that familiar difference between the soft, plastic, spongy crumb, and the harsh, crumbling morsel of six days old? That it is no difference of moisture has been experimentally verified; every cook or baker could have told us that there is no use in placing bread in a moist cellar to prevent the evaporation of its water, since the bread will assuredly become stale as the hours roll on. On the other hand, every baker and every cook could tell us, that if a stale loaf be placed in the oven again for a few minutes, it will come out having (for a time at least) all the characters of new bread. Yet in the oven it must necessarily have lost some of its water, and comes out dryer than it went in—dryer, but not by any means so stale. Further: who does not know the effect of toasting a slice of stale bread? The fire scorches the outside layers, and renders them completely dry, but, especially, if the slice be not too thin, we find the interior layers deliciously soft, plastic and palatable.

An experiment made by the eminent French chemist, M. Boussingault, proves in a convincing manner, that the amount of water in the bread has nothing to do with its newness. He took a loaf six days old, weighing three kilogrammes, 690 grammes, (a kilogramme is something more than two pounds, a gramme is about 15½ grains.) The loaf was placed in the oven for an hour; on removing it, a loss of 120 grammes of water was found to have taken place; yet, in spite of this loss, amounting to three-fourths per cent., the bread was as new as that just made.

It is the water in the bread which prevents the loaf becoming all crust. In an oven with a temperature of 500 degrees Fahrenheit, the loaf gets roasted outside, and the crust is formed; but the inside crumb never has a temperature above 100 degrees; the water which is there, and which cannot evaporate through the crust, keeping the temperature down. If this crumb is thus slow to heat, it is also slow to cool. Every one knows how

long the crumb of a roll continues warm, even on a cold winter morning; and the loaf which was taken from the oven at three in the morning, comes warm to the breakfast table at ten. He placed a loaf, hot from the oven, in a room, the temperature of which was 66 degrees. The law of equilibrium, by which a hot body loses heat until it is no hotter than the surrounding objects, instantly came into operation; but, although all bodies give off their heat to bodies that are colder, they do so with varying degrees of rapidity—some being very tenacious of the heat they have got hold of, and others being the most prodigal of spendthrifts; and thus the loaf, although it began to cool as soon as taken from the oven, did not reach the temperature of the surrounding air till twenty-four hours had elapsed—and then it was stale.

Does it not seem, then, that the difference between new bread and stale bread is only the difference between hot bread and cold bread? It does seem so, when we reflect that we have only to warm the stale bread in an oven to make it new again. But there is this fact which stands in the way of such an explanation; the bread which has been re-baked, although undistinguishable from bread which has been recently baked, is only so for a short time—it rapidly becomes stale again. Were this not the case, we need never have to complain of stale bread; it could always be made new again in a few minutes. The conclusion drawn by M. Boussingault from his experiments is that the staleness depends on a peculiar molecular condition of the bread; and this condition is itself dependent on a fall of temperature.

But new bread, if more palatable, is very unwholesome, because very indigestible to those whose peptics are imperfect. The peculiarity of new bread, that it forms itself into a paste, is an obstacle to its digestion. But this is only true of the lumpy, pasty, doughy, obstinate, irrational bread baked in our favored island. No dyspeptic trembles at the new bread of Paris or Vienna. In Vienna they bake—or used to bake when I lived there—three times a day, and perfectly fresh rolls were served up with each meal. No one complained; every one ate those rolls so alarming to the dyspeptic mind, and would have stormed at an unhappy waiter who should by accident, or philanthropy, have brought yesterday's roll. But let the weak and strong beware how they trifle with the new half quartern, which, in unshapely, uninviting, and well founded modesty, stands on the breakfast table of the British mother. The hot bread may tempt her inconsiderate boy—perhaps the more so because he is assured it is "bad for him." Boys have a very natural suspicion, founded on ample experience, that what parents and guardians declare to be "good for them," is certain to be odious. They are birched for their good, they are bloussed for their good, they are hurried off to bed for their good, and of course they like to try the bad, because it isn't for their good. But, except these young gentlemen, no one with a stomach more delicate than that of a plowman or a fox hunter should venture on hot bread in England. —Once a Week.

☞ A French writer says that the greatest blessing a woman can receive on earth is the continuance of the affection of her husband after marriage.



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### A TALK ABOUT FEBRUARY.

"The wintry West extends his blast,  
And hail and rain does blow ;  
Or the stormy North sends driving forth  
The blinding sleet and snow."



FEBRUARY has come round again, and although the world is still locked in its icy "sepulchre," and "winter keeps the key," we know that, in a few weeks, winter must give his last dying wail, and make way

for that other month, which, bleak enough in itself, puts the world in a state of preparation for something better. But we must not represent winter as altogether desolate.

Provided our bodies are first made comfortable, there is something in a scene such as greets our eyes on some bright February morning, that is fitted to call up emo-

tions by no means unpoetic. You look out through the frosted window panes, and the east is lighted up with a cinnamon glow that waxes deeper and warmer every minute, till the great round sun comes up, and the roofs of the houses, and the trees laden with a light snow, are tinged with a delicate pink, and all the landscape blushes beneath the ardent gaze of the sun. Soon the elms and maples begin to stir in the wind, and shake off their burden, their blossoms of snow,—but the hackmatack, the pine and the fir, presenting a broader surface, may keep theirs for many days yet. How cheerful looks the face of our next neighbor, as he comes out with his shovel to clear away the snow from his door, and how

clear is the ring of his voice, as he shouts his "good morning" across the street.

Is winter altogether desolate? Why, look at those little urchins playing on the slope before the door. Now they stretch themselves full length in the snow, and laugh to see the impression of a boy they have left there. Then they snow-ball each other awhile, or test their strength in a wrestling match, and anon they take a turn at coasting, their joyful cries testifying that the pleasure of drawing the sled up the hill, is scarcely less than being carried down by it. We should find it pretty hard to convert them to the belief that winter is an innovation, and ought not to be tolerated.

But some young lady says, perhaps, "Your winter sunrise may be a very fine thing, but I never saw it." Is it possible—and you not passed the age of romance—is it possible that you find glories in a feather bed which you cannot find in a sunrise! Yet, doubtless, you have often thought it very romantic when you have read in some delicious novel of a Beatrice, or Amanda, who, travelling among the mountains of Switzerland, took a long walk before breakfast to see this same sunrise which you may see any morning from your parlor window. Besides, you know the old couplet—

"Early to bed and early to rise," &c.

But the mornings are growing longer now, and there is quite a perceptible evening twilight,—that hour so pleasant to those at leisure, and surrounded by good company. Hear what Mrs. Stowe says about the twilight that used to come in the old New England kitchens: "How dreamy the winter twilight came in there—as yet the candles were not lighted—when the crickets chirped around the dark stone hearth, and shifting tongues of flame flickered, and cast dancing shadows and elfish lights on the walls, while grandmother nodded over her knitting-work, and puss purred, and

old Rover lay dreamily opening now one eye and then the other on the family group."

That era has indeed, passed away, and save in a few of our isolated country towns, so have the peculiarities she describes in the farm-house kitchen; but the sun still shines and sets, and the twilight falls as softly, and family groups gather just as lovingly together, as they did in the days of Dr. Hopkins and the widow Scudder!

New England life is still calm, and peaceful, and homelike, and probably much more comfortable than then. There are some things which Mrs. Stowe, with all her remarkable fidelity to nature, must have seen through the medium of her own poetic temperament. For instance, when she describes the woman who does work enough for three stout Irish girls—more than three Irish men could do—as having hands "small and white;"—and when she describes a kitchen as never being thrown out of its composure by the events of washing, baking, &c., &c., we appeal to any man (who is not an old bachelor,) if his experience has not led him to a different view of the subject. We assert, then, that New Englanders have taken a step into higher regions of comfort, inasmuch as they have advanced, rather more into the front of their dwellings, and assigned to certain phases of household life the precise place to which they belong, as works of necessity which minister to our comfort and repose, but which are not by any means to be regarded as the object of life.

To change the words of an old aphorism, we should not *live to work*, but *work to live*, and all the beautiful fancies which we can throw about life, without interfering with its practical usefulness, are an advance. Yes, the time has gone by when the good matron was obliged to begin with the very wool on the sheep's back, and provide the family with winter clothing: Steam factories and sewing machines, washing machines and apple-parers! We hail you as so many beneficent hands held out to lift a burden from our wives and daughters, so that forever and always they need not be the mere household drudges who wait upon our pleasure. Society being now arranged upon a somewhat different principle, there is a better chance for our young women to get that out-of-door exercise of which they stand in as much need as our young men. Now we see them out skating on the pond, meadow or river, presenting a picture of grace and health pleasant to look upon. Now we see them crossing through snow-drifts or mud, as the case may be, and we are sorry for the delicate foot which must walk in such rough ways, but flowing skirts are slightly lifted, and behold, a pair of India-rubber boots or snow-shoes removes all our apprehensions for the safety of the wearer. Our great-grandmothers never saw an India rubber shoe, and when they went

to church, all the fire they had was in the little tin foot-stoves they carried in their hands—that "sacred fire," which they guarded like so many priestesses in the temple of Vesta. As to clothing, we would not seek to penetrate too far into the mysteries of the feminine toilet, but any one who will, in confidence, consult some good old lady on the subject, and compare the revelation with what may have come under his own observation, cannot fail to be struck with the improvement that has been made in this matter; nay, he will wonder that the women of sixty years ago did not become pillars of ice in the streets, as we deserve to become "pillars of salt," if we look back with envy upon the past generation, and whine about the "good old days" of our ancestors, instead of being thankful for our improved condition. (Eccl. 7: 10.)

It was well towards the last of February, one hundred and twenty-eight years ago, but in a latitude some six or seven degrees lower than ours, so that perhaps the apricots were in flower, and the crocuses were thrusting their yellow heads out of the damp earth, that a child was born. Doubtless some one came to the father and announced, "It is a boy"—and there was joy in the household, and the mother looked tenderly on her little babe, and prayed that God would be his guide; but she did not know, and no one else knew, that she had, on that 22d of February, 1732, achieved the American Independence! She knew that she was a happy young mother, but she never thought that she was "*Mary, the mother of Washington!*" She knew that it was a great, important era in her life, but she never thought what an era it was in the Nation's life—the nation which was then no nation, but a colony. She little dreamed, that, through her, the *Twenty-Second of February* had become immortal forever.

But God accepted the charge she committed to Him, and so we, up to this February, 1860, have been able to pursue our various callings in peace and quietness, cultivating the arts and sciences, and drinking our tea without paying an outrageous tax!

**ABUNDANCE OF WEEDS.**—An English botanist discovered, by careful examination, 7600 weed seeds in a pint of clover seed, 12,600 in a pint of congress seed, 39,440 in a pint of broad clover, and 25,000 of Dutch clover seed. In a single plant of black mustard he counted over 8000 seeds, and in a specimen of charlock 4000; the seed of a single plant of common dock produced 4700 little docks. The white daisy has over 400 seeds in each flower, and sometimes 50 flowers from one root.

**FORMS OF EXPRESSION.**—People say that they *shell* peas, when they *un-shell* them; that they *husk* corn, when they *un-husk* it; that they *dust* the furniture, when they *un-dust* it, or take the dust from it; that they *skin* a calf, when they *un-*



skin it; and that they *scale* fishes, when they *un-scale* them. I have heard many men say they were going to weed their gardens, when I thought their gardens were weedy enough already.

*For the New England Farmer.*

#### IS STOCK-RAISING PROFITABLE.

This is a subject which should interest all farmers, as all are more or less engaged in the business. Let us see how much it costs to raise different kinds of stock, and the net profit on it.

A colt, for instance, taken as an average, 4 months old, is worth \$20; the use of horse and mare and other expenses is worth \$12; leaving \$8 net profit. It will cost about \$8 for forage the first winter, and 10 cents a week for pasturing 26 weeks, making the whole cost, \$2,60 + \$8 + \$12 = \$22,60. The colt is now worth \$30. The second winter it will not cost much more for forage than the first; as the colt will eat a great deal that other cattle leave, say \$10; pasturing, 15 cents a week, \$3,90. Cost, \$36,50. Worth \$45. Third winter, \$15; pasturing, 20 cents a week, \$5. Colt is worth \$65. Cost \$56,50. Fourth winter, \$20. Pasturing, 25 cents a week, \$6,50. Cost \$83. Worth \$90. Here we have a net profit of \$7 on a colt 4 years and 4 months old; which is one dollar less than the profit on the same colt at 4 months old. The prices which I have set may be called small, but there are more sold under those sums than over them.

If the colt has been worked in this time, which should not be done, it probably has not done any more than enough to pay for breakage and the interest on \$20, which will amount to over \$5.

#### COST AND PROFIT ON SHEEP.

A good lamb 6 months old is worth \$2. Let us keep the sheep four years, with

	Dr.	Cr.
First investment.....	\$2,00	
Cost of wintering, \$1,50; pasturing, 50 cts.....	2,00	
Income, or gain, 5 pounds wool at 35 cts.....		\$1,75
Second year; cost of keeping.....	2,00	
Income one lamb, \$2, 3 pounds wool, \$1,05.....		3,05
Third year, Dr. to keeping sheep and lamb.....	4,00	
Cr. by 8 pounds wool, 35 cts.....		2,80
Cr. by one lamb.....		2,00
Fourth year, Dr. to keeping 3 sheep.....	6,00	
Cr. by 2 lambs, \$2 each.....		4,00
Cr. by 11 pounds wool, at 35 cts.....		3,85
Income of one sheep for 4 years.....		\$17,45
First cost, and cost of keeping same time.....	\$16,00	
Net profit.....		\$1,45
The old sheep is worth as much as when bought.....		2,00
The yearlings, or 2 years old, 50c each extra....		1,00
Which leaves, after paying all expenses.....		\$4,45

A calf one month old, if well fattened, is worth \$4. Now let us see how much profit there is on a "fattened calf." Perhaps I may be wrong, but I should say, it should have 8 or 10 quarts of new milk a day. 8 quarts at 2 cents a quart for 31 days will amount to \$4,96.

If I am right in my estimate, there is no profit in fattening calves, at the prices we get here. If the calf is to be raised, it may be fed on part skim-milk, and will then cost all it will be worth at six months old, viz.: \$5. It will cost as much as a ton of hay is worth to winter the calf well, \$8. It is worth 8 cents a week for pasturing. \$2,08.

Second winter same as the first, \$8. Pasturing, 12 cents a week, \$3,12. Cost, at 2 years and 6 months old, \$26,20. The usual price at this age is \$20. As another year's keeping and growth would not materially alter the relation of cost and profit, and as there are more cattle—heifers especially—sold at this age than at any other, I shall not follow this subject any farther. It has always been conceded by farmers that it costs as much to winter a calf as it does a yearling; and if any one can make the figures count up any different, or in any way make both ends meet, I should be glad to have it done.

T. B. BAILEY.

Newbury, Vt., Jan., 1860.

#### TO PRESERVE STAKES, &c., IN THE GROUND.

Quite recently, while walking in the garden with the Hon. J. W. Fairfield, Hudson, N. Y., he called my attention to the small stakes which supported the raspberry canes. The end in the ground, as well as the part above, was as sound and bright as if lately made, but he informed me that they had been in constant use for twelve years! Said I, "Of course they are kyanized?" "Yes," he replied, "and the process is so simple and cheap that it deserves to be universally known, and it is simply this: One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder.

"The end of the stick is then dropped into the solution, and left to stand four or five days; for shingles three days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask as other liquids do, this shrinks them. Chloride of zinc, I am told, will answer the same purpose, but the blue vitriol is, or was formerly, very cheap, viz.: three to six cents per pound."

Mr. Fairfield informed me that the French government are pursuing a similar process with every item of timber now used in ship-building, and that they have a way of forcing it into the trees in the forest as soon as cut, ejecting the sap and kyanizing it all on the spot. I have not experimented with it, but Mr. Fairfield's success seemed to be complete.

The process is so simple and cheap as to be within the convenience of every farmer, and gardener, even, and I therefore thought it so valuable as to warrant a special notice of it.—R. G. Pardee.

THE COUNTRY GENTLEMAN.—The enterprising publishers of this excellent journal have made some typographical changes in it at the opening year, omitting the benign countenance which had long stood as a vignette, but introducing a larger type as a compensation. The larger type is a decided improvement. The doctrines of the *Country Gentleman* are sound, and its conductors gentlemen of ability and the highest sense of honor. The Old Gentleman makes his mark wherever he travels.

## EXTRACTS AND REPLIES.

## ORNAMENTAL TREES.

Permit me to ask you and your correspondents a few questions in regard to ornamental shade trees. I propose to set some in a hard, clayey soil, and I wish to know what are the best kinds adapted to the soil, and which is the best season? Also, the manner of transplanting.

I would ask is there any difficulty in growing the rock maple in the described soil?

Dover, N. H., Dec. 19, 1859.

G. F. S.

REMARKS.—The same care that is bestowed upon a well set apple tree, is all that is necessary for shade trees. Any shade tree will grow in a "hard, clayey soil," if that soil be rich and is not drowned with water. The trees, however, would grow vastly better if the land were drained. The rock maple often grows luxuriantly on such lands.

## WILD GRAPES.

Can the wild grape be domesticated? Will it result in an improvement in the size and quality of the fruit? It grows by the river side, has a sharp, acid taste and is about the size of a large pea. I think of transplanting several of the vines the coming spring, with a view of enlarging and improving the fruit, if possible. I will report the result of the experiment. Any suggestions will be thankfully received.

L. W. SANBORN.

Lyndon, Vt.

REMARKS.—It is doubtful whether the wild grape root or vine can be materially improved. We have tried to do so, and have known others make the attempt, but with little success. The effect would be much like that of attempting to improve the common crab apple tree. Cultivation would undoubtedly increase the size of the tree and the fruit, but the natural sharpness of the fruit would remain, despite all your fostering care.

## NORTH READING FARMERS' CLUB.

This Society has proved a very interesting and profitable one; its members meet every fortnight to discuss subjects pertaining to agriculture, horticulture, &c. Its meetings are attended by all our best and most intelligent farmers, and many valuable thoughts and suggestions are elicited at every meeting. During the last winter, lectures were delivered before the club by practical men, among whom J. M. Ives, Asa G. Sheldon, J. G. Needham and Rev. F. N. Jones. A course of lectures has been commenced this winter, to continue through the season.

G. F. F.

## PROFITS OF COWS.

Your correspondent, Mr. Pinkham, appears determined to look upon the worst side of the picture. I hardly think his is the true one—at least, it is very strange that thousands of farmers should have been growing poorer for the last fifty years, and not have discernment enough to see it. I think Mr. Pinkham must be rather a poor farmer, not to be able to get but a trifle over 1800 quarts of milk from his fifty dollar cow. A good cow will give seven quarts (wine measure) per day the

year through, making 700 quarts more than that cow. Now milk is worth two cents and a half, year in and year out, either for sale or to make butter, making sixty-three dollars. The cost of keeping a cow one year varies in different places. In Chelmsford, I presume it would be about \$40, leaving clear \$23, which is, all things considered, (such as in that way finding a ready market for his hay, roots, &c.,) very fair.

Lynn, 1859.

YOUNG DAIRYMAN.

## THE HYDRAULIC RAM.

I have a ram that has been running for the last eleven years, supplying water for house and stable, with only two feet eight inches fall, and twenty feet rise, with scarcely any trouble, and for aught I can see, with but very little wear of the machine.

## LEGHORN FOWLS.

I wish to inquire if any of your readers have tried the Leghorn fowls; if so, what is their opinion of them? I have kept them the past year, and they have given better satisfaction as layers than any others we have ever kept, although we thought the Black Spanish very good. Ours are mostly of the white variety, and for beauty or utility are unsurpassed by any fowls within my knowledge.

## THE NATIVE GRAPE.

I have three kinds of native grape which I have cultivated for the last fifteen years or more, and which have been called superior by all who have eaten of them. The red grape, purple grape, and what we call the white grape. They are all hardy, and ripen in season to be out of the way of Jack Frost.

L. R. HEWINS.

Foxboro', Dec. 16, 1859.

For the New England Farmer.

## CAPACITY OF DRAIN PIPE.

PREPARED BY MESSRS. SHEDD & EDSON, AGRICULTURAL ENGINEERS.

The tables here given were prepared for private use, in the practice of agricultural drainage, and have been of great benefit.

Tables of discharge, without the length of pipe that may be used, were contributed to FRENCH'S Farm Drainage, but beyond that, it is believed no tables suited to the purpose for which these were designed, and based upon actual, careful experiment, have ever been published. It is hoped these will contribute somewhat towards establishing a more exact method of determining the size of pipe required, than has heretofore been used.

Mr. Smeaton's experiments form the basis of the tables of discharge, and the results have been verified by comparison with other tables, and by the rules of Weisback and D'Aubuisson.

There are many reasons for a difference in the quantity of water discharged from drains of the same area, and at the same inclination, when pipes are taken from different kilns and laid by different persons; but it is believed that the quantity of discharge, due to the size and fall, is here given with accuracy for a well laid drain formed of good pipe; it is, certainly, with sufficient accuracy for our purpose.



Nothing appertaining to drainage has been done so blindly, either in England or in this country, as the selection of the size of pipe for sub-main and main drains.

The result of an error in the size of pipe required is sometimes only extravagant, at other times it is mischievous, for the destruction of the work may be caused by it. If the size of pipe used is larger than is required, the extra cost is thrown away—but if smaller, then the pressure of water, accumulated from lateral drains, and flowing into a submain or main drain too small to convey it away, may cause the pipe to “blow,” or burst.

We are liable to have, at any time in New England, a rainfall of 3 inches vertical depth.

It has been found, from various long and careful observations, that 50 per cent. of this rainfall is water of drainage, from land in ordinary condition in the northern States.

From a thoroughly drained field, the percentage of water of drainage will be greater than this, but not over 66½ per cent., except under extraordinary circumstances. We have, therefore, assumed, in making up these tables, that it is necessary to provide for the discharge of water falling upon a strip of land forty feet in width, to the depth of two inches, and running off in forty-eight hours.

The quantity of discharge is given for a straight pipe running full, but a full pipe cannot perform the office of drainage and an allowance of 15 per cent. of the area has been made, to allow of the entrance of water all along the line of the drain. All drains are liable to curvature, and a greater part of the drains in every system must be curved, to some extent, at their confluence with other drains. A well laid drain, turning by a gentle curve to flow at right angles with its former course, will discharge about 10 per cent. less water than when running straight,—an allowance has therefore been made for this.

In a thoroughly pulverized soil, the space occupied by air is about 25 per cent. of the entire bulk, so that such a soil, drained to the depth of 3 or 4 feet, would receive the largest rainfall of which we have any record, without filling the soil, and running off over the surface. Such pulverization can only occur under the most constant cultivation and thorough drainage; but most soils, well drained and subsoiled, will, after the drains have acted for two or three years, receive the largest rainfall without surface-washing.

The tables can only be used to provide for water falling on the surface occupied by the drains. If the drained field occupies such a position that surface water flows from other fields into it, the size of pipes must be sufficiently increased to provide for it, and if the water of springs would find outlet through the drains, a similar provision must be made for it. Of the necessary increase in size for these conditions, only an experienced and competent person can judge; but the tables are still very useful under these circumstances, for the relative size of pipe required remains as before, and the proper place to make a change from the size of pipe being used to the next larger, can be accurately determined from them.

The areas used in these tables, and given under each size of pipe, are taken by actual measurement from pipe manufactured in New England. The 1½, 2, 3, 4, and 5 inch sizes, are common sole-

tile pattern. The 8 inch size is round bore, 8 inches in diameter.

The left hand or *first column*, shows the fall in one hundred feet given in feet and inches. The *second* gives the number of gallons of water the pipe would discharge in twenty-four hours if laid at that inclination. The *third* shows what length of pipe of that size may be used to convey water of rainfall, before it will be necessary to take the next larger size.

In seeking the necessary size of pipe for a certain position, the aggregate length of all the drains above it, from which water would flow into the pipe at this point, must be taken from the length allowed by the table, and the remainder will show what length of pipe may be used from that point forward, as far as the fall continues the same.

#### 1½ INCH DRAIN PIPE.....AREA, 1.77 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	5631	169	5.3	29705	861
0.8	8248	247	5.8	30454	913
0.9	10231	307	5.9	31168	985
1.0	12055	362	6.0	31723	952
1.3	13300	414	6.3	32016	975
1.6	15148	454	6.6	33151	996
1.9	16655	500	6.9	33706	1011
2.0	17924	538	7.0	34340	1030
2.3	19113	573	7.3	34975	1049
2.6	20303	609	7.6	35609	1068
2.9	21334	640	7.9	36154	1085
3.0	22444	673	8.0	36878	1106
3.3	23151	694	8.3	37354	1121
3.6	24268	728	8.6	37989	1140
3.9	25061	752	8.9	38464	1154
4.0	26013	780	9.0	38940	1168
4.3	26806	804	9.3	39495	1185
4.6	27441	828	9.6	39971	1200
4.9	28234	847	9.9	40447	1213
5.0	28947	868	10.0	40926	1228

#### 2 INCH DRAIN PIPE.....AREA, 2.98 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	10575	317	5.3	55019	1650
0.8	15528	465	5.8	56492	1695
0.9	20080	602	5.9	57896	1731
1.0	22891	687	6.0	58901	1767
1.3	25970	780	6.3	60106	1803
1.6	28915	867	6.6	61310	1839
1.9	31459	944	6.9	62382	1872
2.0	33868	1016	7.0	63453	1904
2.3	36010	1080	7.3	64667	1940
2.6	37884	1137	7.6	65728	1972
2.9	39758	1193	7.9	66799	2004
3.0	41632	1249	8.0	67870	2036
3.3	43873	1301	8.3	68941	2068
3.6	44979	1349	8.6	70012	2100
3.9	46585	1398	8.9	71083	2132
4.0	48058	1442	9.0	72020	2160
4.3	49581	1486	9.3	73091	2193
4.6	50969	1526	9.6	74028	2221
4.9	52342	1570	9.9	74965	2249
5.0	53814	1614	10.0	75902	2277

#### 3 INCH DRAIN PIPE.....AREA, 6.11 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	24687	740	5.3	125356	3750
0.8	36482	1094	5.8	128874	3850
0.9	46534	1366	5.9	131117	3933
1.0	53215	1596	6.0	134134	4024
1.3	60072	1802	6.3	136608	4098
1.6	66656	2000	6.6	139346	4180
1.9	72142	2164	6.9	142099	4263
2.0	77628	2329	7.0	144567	4336
2.3	82291	2469	7.3	147306	4419
2.6	86680	2600	7.6	150069	4502
2.9	90794	2724	7.9	152238	4587
3.0	95183	2855	8.0	154706	4641
3.3	98749	2962	8.3	157175	4715
3.6	102589	3078	8.6	159644	4789
3.9	106155	3184	8.9	162113	4868
4.0	109447	3283	9.0	164313	4929
4.3	112738	3382	9.3	166502	4995
4.6	116030	3481	9.6	168970	5069
4.9	119047	3571	9.9	171165	5135
5.0	122339	3670	10.0	173359	5201

## 4 INCH DRAIN PIPE.....AREA, 9.01 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	43966	1311	5.3	196638	5899
0.6	60691	1821	5.6	201090	6033
0.9	74048	2221	5.9	205945	6178
1.0	86181	2585	6.0	210366	6312
1.3	99297	2889	6.3	214442	6433
1.6	105608	3168	6.6	218893	6567
1.9	113895	3411	6.9	222939	6688
2.0	121382	3641	7.0	229065	6810
2.3	129090	3878	7.3	231032	6931
2.6	135948	4078	7.6	235077	7052
2.9	142827	4285	7.9	239128	7174
3.0	148996	4467	8.0	243169	7295
3.3	154590	4637	8.3	246811	7404
3.6	160225	4807	8.6	250452	7514
3.9	165899	4977	8.9	254093	7623
4.0	171554	5147	9.0	257735	7732
4.3	176814	5304	9.3	260972	7829
4.6	182074	5462	9.6	264608	7938
4.9	186928	5608	9.9	268265	8048
5.0	192189	5766	10.0	271492	8145

## 5 INCH DRAIN PIPE.....AREA, 19.64 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	90584	2937	5.3	442401	13272
0.6	138392	4151	5.6	452977	13589
0.9	167442	5023	5.9	462671	13880
1.0	193881	5816	6.0	473946	14197
1.3	215013	6477	6.3	483620	14515
1.6	237945	7138	6.6	493515	14805
1.9	255570	7667	6.9	502927	15070
2.0	273196	8196	7.0	511140	15334
2.3	293940	8998	7.3	520032	15602
2.6	304922	9148	7.6	528767	15863
2.9	320785	9624	7.9	537579	16127
3.0	334385	10146	8.0	546392	16392
3.3	348975	10469	8.3	555205	16656
3.6	362205	10866	8.6	564017	16920
3.9	375424	11263	8.9	571948	17158
4.0	387762	11633	9.0	579880	17396
4.3	398338	11950	9.3	589930	17608
4.6	410675	12320	9.6	594861	17846
4.9	421251	12638	9.9	602793	18084
5.0	430825	12925	10.0	610728	18322

## 8 INCH DRAIN PIPE.....AREA, 50.26 INCHES.

Fall.	Discharge.	Length.	Fall.	Discharge.	Length.
ft. in.			ft. in.		
0.3	277488	8324	5.3	1209959	36290
0.6	372240	11167	5.6	1234031	37621
0.9	453456	13604	5.9	1261108	37833
1.0	525648	15789	6.0	1288176	38845
1.3	596360	17907	6.3	1315242	39457
1.6	642959	19289	6.6	1343889	40315
1.9	694848	20845	6.9	1369391	41082
2.0	744479	22254	7.0	1391961	41759
2.3	789600	23688	7.3	1414531	42347
2.6	844720	25342	7.6	1441583	43247
2.9	877584	26327	7.9	1468399	43992
3.0	913690	27410	8.0	1499969	44669
3.3	949776	28493	8.3	1511569	45345
3.6	971650	29149	8.6	1534099	46023
3.9	1021974	30659	8.9	1556655	46700
4.0	1053551	31697	9.0	1579199	47376
4.3	1096135	32384	9.3	1601759	48053
4.6	1116719	33501	9.6	1624319	48730
4.9	1146947	34381	9.9	1644822	49399
5.0	1177631	35329	10.0	1664927	49948

**SAVING MANURE.**—On re-publishing Mr. Holbrook's plan of a gutter in the stable, immediately behind the cattle, to be filled with absorbents for the liquid portion of the manure, the editor of the *Homestead* expresses preference for a method which he practices, of keeping the entire stable covered with a thick layer of dry muck, or other absorbent. The parts of this bed that become saturated, and the solid feces, are removed as occasion requires, and the whole is replaced once in two weeks, and should be kept covered with litter, which furnishes a comfortable bed for the stock, whose animal heat is supposed to produce very beneficial effects upon these materials.

The solid and liquid droppings of a well-fed cow are estimated by the editor at nearly a ton a month, to which three tons of muck may be added; thus producing full four times as much as that made in the common practice; and if the quality is at all inferior, he has not been able to discover it in a close observation of six years.

*For the New England Farmer.*

### SUBJECTS FOR DISCUSSION IN FARMERS' CLUBS.

**MR. EDITOR:**—As I see that an effort is being made by the State to institute and promote Agricultural Clubs throughout the Commonwealth; and as I have known such clubs to be at a loss to find subjects promotive of their interest and the general good to discuss, I thought I would send you for publication in the *Farmer* a few of the many questions in which the farmers should take deep thought, and consult together at the present time.

Has a man a right to follow a losing business?

Are any of the "Statute Laws" of this State oppressive and degrading to the farmer?

Is the common system of marketing promotive of the farmer's interests?

Have the farmers a right to combine, or act in unison, to promote their interest?

Is selling farm products below their cost, a public benefit?

Is New England farming at the present time conducive to health?

Would a change of thought and effort among agriculturists, from how to obtain a large surplus, to the idea of a sure profit, result in universal good to all classes?

Can most of the evils of society be traced directly to the unprofitableness of farming?

I want to say at some time, and perhaps I might as well say it now, and in this connection as well as in any other, that, as a citizen of Massachusetts, and a farmer, and my interests and rights being inseparable from those of my brother farmers, I am opposed now and forever, to all *State effort* or *State aid*, to promote, as it is thought by some, the farming interest. I can see nothing in it but "evil, and that continually." "Let every tub stand upon its own bottom," is perhaps not a very genteel expression, yet is it not applicable in this case? For half a century our good and ever indulgent mother, the *State*, has fondled and caressed the farming interests, till she has made fools of one portion of the people, and nearly bankrupted another.

Repeal all laws that are antagonistic to the farmer's good, and dry up the pap which has flowed from the treasury of the State for a quarter of a century, and in five years, if the farmers of the Old Bay State don't show signs of life and prosperity, which they never before dreamed of, then write me down as incompetent to judge of the natural course of cause and effect. "Where the carrion is, there also will be found the vulture." Let the course which is fast gaining ground in the State, be continued for another quarter of a century, and if a "*child*" that is not easy to manage, but will be extremely troublesome, is not fastened upon us, then I am no judge. If the State has got any

stray change in its huge pocket, that it can find no better use for, let it pay its debts, and wean her offspring before it has the power to kick her over.

Let the farmers put on and wear a clean dicky, become more familiar with the slate and pencil, and learn the difference between profit and the prime cost of an article, and in five years not a man among them could be found who would be willing to acknowledge that they were ever *under guardianship* to the State. Further, let the lawyers, doctors, preachers and the soft-hand gentry generally, observe the familiar adage, "shoemaker, stick to thy last," and if they happen to feel the need of any thing in *our line*, and have got any loose change in the their trowsers pocket, and will call around and be civil about it, they can be accommodated.

T. J. PINKHAM.

Chelmsford, Mass., Dec. 19, 1859.

*For the New England Farmer.*

#### TURNING COWS TO GRASS—COST OF KEEPING.

MR. EDITOR:—Looking over your correspondent T. J. Pinkham's article on raising milk, I notice he does not propose to turn out his cow to grass till the first of June. This is not the time of year to talk about turning out cattle, but as it brought the subject to my mind, I will write a few lines on it.

I consider it best to turn out stock early. From the 10th of May to the 10th of June is usually the best feed month in the year. I turn out just as early as I can, or as soon as the grass gets started, for two reasons; that the stock does better, and the pasture does better. I know that many good farmers say, let the pasture get a good start. I have found by experiment that if I kept my cattle up late, till the feed got rank, they were sure to scour badly, while if I turned out early, they would not scour at all, and after a few days would eat hay again.

By turning out early, the cattle go into the low places, where the grass starts first, and eat them down; whereas, if you turn in late, they do not go into the low places, and that grass, not being as good, is suffered to go to seed. If the low ground is fed down early, it starts up fresh again, and they will keep it fed all the year.

I have known many cows injured, and some spoiled by turning them from hay into rank clover.

Hollis, Dec. 17, 1859.

ED. EMERSON.

P. S.—As I do not think much of selling milk at 2 cents per quart, I will not go into the profit or loss, but should like to keep 40 or 50 of Mr. P.'s cows at 8 cents a day, or 56 cents per week. On most of the milk farms out of the villages, from 3 to 4 cents is as high as is paid per day. Two and a half tons of hay and five bushels of meal, looks large. His cow may eat it, mine will not in one winter.

TIMOTHY SEED.—In Lee county, Illinois, this seed is grown successfully on the prairies. In one case six hundred bushels were harvested on eighty acres. Three successive crops are recommended, producing some fifteen dollars per acre. With reapers and threshing-machines the crop is cheaply harvested.

*For the New England Farmer.*

#### SCRATCHES IN HORSES.

What are "scratches" in horses, and what will the most speedily and assuredly effect their cure? The first portion of the question, it is well to answer, although seldom advanced. But the remainder is so often placed as an inquiry in your columns, Messrs. Editors, that if one knows a remedy, I hold he should make it public, as indeed he ought *all* knowledge that he thinks may be of value to his fellow-man.

"Scratches" or "selenders" is a cutaneous disorder, exhibiting itself between the hinder postern joints and hoofs of the horse, consisting of cracks, soreness, and at times attended with suppuration. They are generally most troublesome in winter and spring, while the roads are muddy, (which obstructs the perspiration of the parts,) together with snow water, which is very unfavorable. They are a source of great irritation to the animal, and even of acute pain; and if long neglected, ultimate into lameness, and almost an entire loss of the services of many a fine horse. Such are scratches or selenders.

Now as to their cure. Being strictly of a cutaneous disorder, cutaneous remedies are most appropriate; still other alleviators are desirable, if not needed. First, the affected parts ought to be thoroughly cleansed, and well washed in warm castile soap-suds, and thoroughly dried with a clean cloth; then a decoction made from the plant I will hereafter designate, and all parts bathed, say twice a day, for a few minutes, allowing the same to dry well in, until a cure be effected. In some conditions of the ailment, it may a little keenly irritate, but this is mere momentary, and should not be regarded. The diet of the animal ought to be cool and loosening, but no internal medicines are required. In fact, the dosing with salts, nitre, brimstone, and very many other articles, are seriously pernicious, tending to debilitate the animal, and thus weaken the recuperative powers, so greatly needed in all healing processes. Potatoes fed raw, are most useful, their effect being not only laxative, but "anti-scorbutic." So with various other vegetables in a degree.

The wash, (before alluded to,) is made by obtaining the twigs, leaves and blossoms of the plant known as "lamb kill," growing so abundantly in most of our fields, and steeping a quantity of the same in clear water, that is boiling and simmering it, and suffering the same to stand and cool but making the decoction quite strong. This in fusion, applied, as before directed, (paying some measure of regard to the diet of the animal, as before given,) is a speedy, sure and effectual curative of scratches or selenders in horses. In no instance, wherever applied, have I learned of its failure or cure. At least, the whole process is a harmless one, and worthy the trial of any regarding the goodly condition of the suffering beast. It would be well, that this valuable "plant" be gathered in its appropriate season, and carefully marked, as if taken by any one inwardly by mistake, its effects would be most dangerous. That all may understand fully what this product is, I copy from "Thatcher's Dispensatory." "Lamb kill, is an evergreen common on cold, wet land. Blossoms reddish, variegated, June and July. The leaves prove fatal to sleep. From an inaugural experi-

mental dissertation published in Philadelphia, 1802, by Dr. Thomas, upon the species of lamb kill, botanically called '*Kalmia latifolia*,' it appears that the leaves abound with resin, and are most active as a mercurial agent. From the same dissertation we find that a decoction prepared by putting one ounce of the leaves into eight ounces of water, and boiling it down to four ounces, cured a 'diarrhoea' of eight weeks' continuance. The dose, at first, was thirty drops, six times a day, but producing vertigo, it was diminished to four times a day. The itch was speedily cured, by washing the parts with the decoction. The 'scald head' or '*Tinea Capitis*,' was also cured by anointing the head with an ointment made of the leaves and hog's lard. Dr. Barton bears testimony of the effect of this ointment in '*Tinea*.' A saturated tincture of the leaves of the plant in proof spirit, is an active remedy. Some kinds of 'herpes' and warty excrescences have been known to yield to the repeated application of an infusion of '*Kalmia*' leaves."

This is the description given by the celebrated Dr. Thatcher, in his valuable dispensatory, on the virtues of '*Kalmia*,' or lamb kill. It will thus be seen, he values it highly as a remedial agent in cutaneous affections, by reason of its determined action on diseases of the skin. And such are scratches or selenders in horses, being merely a local disorder of the skin, connected with the limbs of the animal. To any one who will apply this easily obtained and sure curative, following closely the directions we have laid down, we promise a speedy, safe and perfect cure of that most aggravating ailment in horses, scratches or selenders.

December 15, 1859.

OAK HILL.

*For the New England Farmer.*

#### THE CORN AND OTHER CROPS.

You say, in your last paper, that the critics are after Mr. Pinkham with a sharp stick, relative to his communication of Nov. 12th. I have read, with interest, what Mr. P. said, and I think his estimate nearest to the cost of producing an acre of corn than those cute men who have as yet criticised his estimate; take, for instance, Mr. Emerson, who hires his men so that the cost of the day's work is but fifty-eight cents per day. I would like to give more than one-half of that sum to board my hired help; I should think I was evading some of the commands of the good Book, where it says, "the laborer is worthy of his hire," if I paid him only one dollar for husking sixty-six bushel ears of corn. Now for Mr. P.'s estimate; he only charged ten dollars for ten loads of manure, which four oxen hauled out; these oxen will draw out, easily, one-half cord that is worth five dollars per cord, in any farmer's yard; therefore, if as some say, one-half of the value of the manure is left in the ground, he has not charged too much for it. Mr. E. objects to the charge of plowing, and seems to intimate that part of it should be reckoned as improvement of the land, if the land was well laid down to grass; for myself, I should rather have it, than to have it plowed; for the amount of manure usually put on by farmers, will do more good as top-dressing, than otherwise applied.

In answer to the question put by those who at-

tempt to show up Mr. P., by asking how do the farmers pay for their farms, paint their buildings, &c., I will say, on most farms, there are either wood, rock, or something else, which the farmer in the winter carries to market, which will bring the cash; if not, how does he do it? Five acres of corn will take the time of the entire season to cultivate, so the best judges say, viz., 100 days; and he gets in profit, eighty-five dollars to do all these things with, according to the estimates of the other writers. How many years would it take to pay the interest, taxes, and for the farm, if he paid \$2000 for it, at the last estimate? s.

*Cape Elizabeth, Dec., 1859.*

REMARKS.—We meant no disparagement to Mr. P. or his article by our remarks.

*For the New England Farmer.*

#### AN OLD MAN'S OPINION OF FARMING.

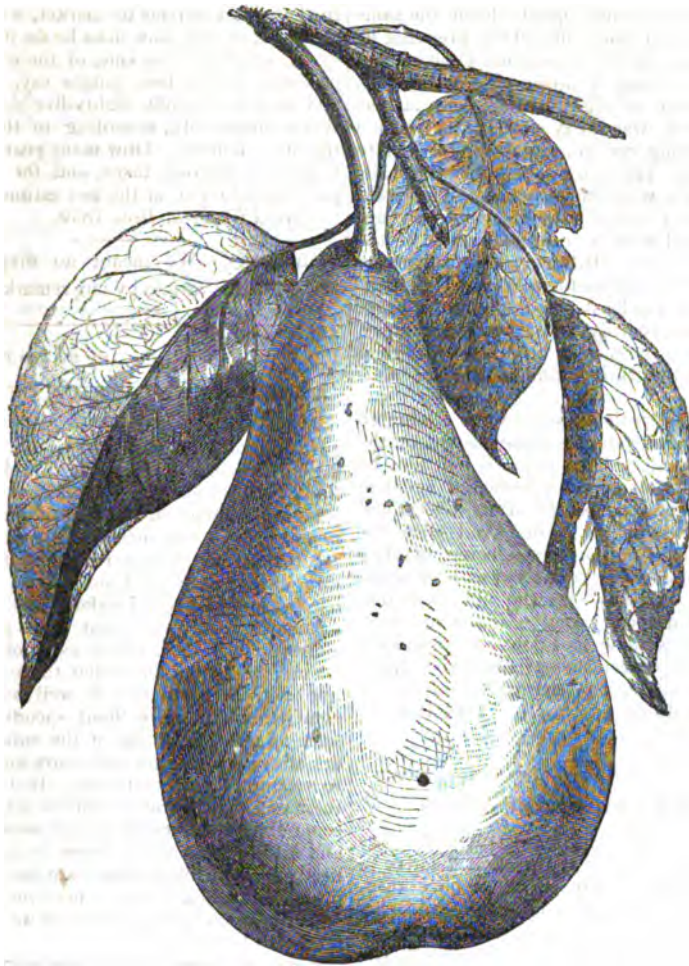
MESSRS. EDITORS:—I am glad to see the discussion going on in regard to the profit of farming; if no one had replied to Mr. Pinkham, I think I should have tried; but I am glad that abler pens are engaged upon the subject. That there is a secret blessing attends the labors of the honest, industrious farmer, I have no doubt, from my own experience; for I am located on one of the hardest spots of New England, and had very small means to work with, but have gradually been gaining, until now, I have as much property as I desire; all I wish for is that those who do the labor upon the farm may be well paid, and have a comfortable living, without spending the real estate. I think it is one of the mistakes of farmers, after they have got into years, and have enough to support them comfortably, to keep adding to their real estate, rather than to let their sons, or some other industrious young men, do the labor, and have what income there is more than they need for their own actual support. Farming is my delight, and if I cannot perform the labor now, I will try to encourage others to do it, and be content with the returns.

Some unknown friend has sent me a copy of the Middlesex County Agricultural Report, for which they have my hearty thanks.

*Gloucester, Mass., 1859. THOMAS HASKELL.*

PEACHES IN POTS.—In the orchard house of D. T. Coit, Norwich, Conn., says the *Homestead*, peaches are cultivated in sixteen-inch pots, or in boxes about the same size, kept in the grapery during winter, and removed to the open ground in June. Of course the trees are severely headed-in, and kept within small compass. They will bear about two dozen peaches each, and when thus managed are as sure a crop as any other fruit. In this sized pot they are easily managed, and a large number may be wintered in a small house.

MIXING PEACH AND APPLE TREES.—This practice is condemned by a writer in the *Prairie Farmer*, because the peach trees will die out sooner or later, and leave the borer and the old roots to bother for years.



THE BEURRE BOSCO PEAR.

CALEBASSE BOSCO.  
MARIANNE NOUVELLE.

BOSCO'S FLASCHENBIERE.  
BEURRE D'YELLE, of some.

Some of our most intelligent pear cultivators pronounce this as among the best varieties, and occasionally one among them becomes quite eloquent in its praise. We give, below, Downing's opinion of it, and that, with the beautiful illustration which we now present the reader, will remove all question as to whether it is a variety worthy of cultivation.

"The Beurre Bosc is a pear to which we give our unqualified praise. It is large, handsome, a regular bearer, always perfect, and of the highest flavor. It bears singly, and not in clusters, looking as if thinned on the tree, whence it is always of fine size. It was raised in 1807 by Van Mons, and named Calebasse Bosc in honor of M. Bosc, a distinguished Belgian cultivator. Having also

been received at the garden of the Horticultural Society of London under the name of Beurre Bosc, Mr. Thompson thought it best to retain this name, as less likely to lead to a confusion with the Calebasse, a distinct fruit. The tree grows vigorously; shoots long, brownish olive.

"Fruit large, pyriform, a little uneven, tapering long and gradually into the stalk. Skin pretty smooth, dark yellow, a good deal covered with streaks and dots of cinnamon russet, and slightly touched with red on one side. Stalk one to two inches long, rather slender, curved. Calyx short, set in a very shallow basin. Flesh white, melting, very buttery, with a rich, delicious and slightly perfumed flavor. Ripens gradually, from the last of September to the last of October."

*For the New England Farmer.*

### THE CORN CROP.

MR. EDITOR:—Disparity of statements and estimates among your practical farming correspondents in relation to the "cost" of the "corn crop," has doubtless attracted the attention of many. Mr. Pinkham, of Chelmsford, throws down the gauntlet, and labors at length with figures, (as the politicians say,) "that can't lie." Mr. Sheldon, of Wilmington, and J. R., of Concord, by another showing of figures, make a more hopeful case. We much prefer the latter showing, as it results in round profits, while the other ends in serious loss. Huskings, and red ears of corn, with their pleasant associations, would come to an end. Sad and discouraging is the picture of our friend P., which would not particularly promote the public weal. New England farmers need the home incentive. Unhappily, they too often sigh for a home in the West, and when obtained, they too soon begin to pine and sigh again for the old home of their youth, with its once cheering comforts, its hallowed associations, its consecrated hearth-stone, so dearly remembered.

But I was about to give you a little of my own corn experience, and in so doing, I think it not amiss to state, that in 1845 or 6, I applied for a premium at the Essex Agricultural Show, having by careful measurement, raised ninety-two bushels to the acre. I supposed myself sure of the premium, but the Byfield Alms-house presented their claim for 116 bushels, so I took the premium that I felt was scarcely second best. About that time, Rev. Mr. Allen, (I think it was him,) of Plymouth County, presented a claim of some 125 to 130 bushels or more to the acre, out of which arose quite an acrimonious debate between himself and Mr. Buckminster of the *Ploughman*, the latter pertinaciously doubting the quantity.

I name the above three cases of corn growing, (to say nothing of "some pumpkins" that went out of my field in cart loads) to show that in good seasons, no farmer should be content with 30 or even 60 bushels to the acre. Why haul manure half to three-fourths of a mile, to put on shallow soil, say ten loads to the acre, and obtain 100 bushels of corn from four to five acres? Because it "hoes easy." Why not plow up deep, and pulverize one good acre nearer home, and put in with the plow the forty loads of manure, and get as much from the one acre as from the four or five on poorly cultivated land? It costs no more to cultivate the one acre that will give the 100 bushels, than it does one out of the five that shall give you but 20 bushels. It is a labor crop, very unlike a grain crop; once planted, then to wait patiently till it matures. The fatal errors of the day are, the too much cultivation, or breadth of land, for the manure to be applied.

H. P. P.

*Brooklyn, New York, 1859.*

TO CORRESPONDENTS.—We have received several seasonable and valuable articles, which we shall soon find room for; and while we express our obligations to the attentive and intelligent correspondents of the *Farmer*, for their numerous favors, we would say that their circle is constantly increasing, and that in order to give a hearing to

all, it becomes necessary for each to be as concise as the nature and importance of his subject will permit. The critics are after Mr. Pinkham with a sharp stick; he has sent us other important queries, and will not be alarmed at any fair treatment, though it may be a little severe.

We are sometimes requested by correspondents to have an article appear in the *Monthly Farmer*, that is then next to be issued, but are rarely able to accommodate them. The *Monthly* is made up of the agricultural matter of the weekly papers, and is printed and stereotyped as fast as matter enough accumulates to cover a sheet, and the whole number is got out ten days in advance of its date, in order to enable us to mail it so that it may be received by the first of the month on which it is dated.

*For the New England Farmer.*

### THE NATIVE BLACKBERRY—THE LAWTON.

MR. EDITOR:—We have in this vicinity what appear to be three varieties of the blackberry.

1. The trailing variety, with berries nearly round, often imperfect, each seed enclosed in a larger envelope of pulp and juice than the high-bush berries, and the surface usually rather uneven. This variety is quite acid, and ripens immediately after the common red raspberry—is very acceptable for pies, but worthless for the dessert.

2. A variety which seems to be intermediate between the trailing and the high-bush. The bush sometimes grows to a considerable height, but is of a pendant or drooping form. The fruit, in form and size, very nearly resembles the trailing variety, but is much less acid, and when well ripened, is quite palatable—not generally very productive, but sometimes specimens may be found bearing very large crops.

3. The high bush, which grows much taller and more erect than the last, usually producing fruit much more elongated, seeds less prominent, but little acid, even before fully ripe, and the quality much superior to either of the others in all respects.

These three varieties are, I think, sufficiently distinct to be classed separately, although, by mixing, specimens are produced of all grades from one to the other. These last, however are not nearly so abundant.

The Lawton or New Rochelle, which I have tried to cultivate to a small extent for a few years past, evidently belongs to the intermediate variety, although I have found it considerably more acid than the wild berries of its class, and so far as my experience goes, this acidity is retained to such an extent as to make the fruit unfit for the dessert even when allowed to remain on the bushes until perfectly ripe. Add to this the want of hardiness—the plants having been almost invariably killed to the snow line—and you have my opinion of the value of this fruit for Massachusetts, at least.

The Lawton is certainly very large, and probably quite productive when not winter-killed, and for aught I know, may, in a milder climate, be all it is recommended, but is it not possible, Mr. Editor,



that many who prize it so highly have never seen or tasted the real high-bush blackberry? I ought to add, perhaps, that my berries were raised on land which has produced eighty bushels to the acre, good sound shelled corn, and that seedlings from the wild blackberry within a few rods of them have stood the winter perfectly.

The Dorchester I have never tasted, but the general appearance of the fruit, as I have seen it in your city, is like the high-bush, except that it is not so long as most of the wild berries.

The blackberry, when in perfection, is a most delicious fruit for the dessert and for pies, and by the aid of preserving cans, may be had all the year; its introduction to the fruit garden is, however, quite recent, and the cultivated varieties are consequently few in number. I would suggest that those who live in districts where this fruit grows in abundance and perfection, would do well to mark those bushes which produce most abundantly of the largest sized and best flavored fruit, and at the proper time transplant them to their gardens. By a little attention to the time of ripening, too, varieties might be obtained which would yield us an abundance of this most wholesome fruit, from the usual raspberry season until the weather becomes too cold for them to ripen.

*Ashfield, Dec. 19, 1859.* WM. F. BASSETT.

#### FLOWAGES.

The committee appointed by the last Legislature to inquire into the causes of the flowage and destruction of lands in the valley of the Concord and Sudbury rivers, recently had another hearing at the State House, which continued several days. The counsel for the Petitioners present, were Judge Mellen, Judge H. F. French and D. L. Child, Esq. For the Respondents, Judge Abbott, B. F. Butler, Esq., and Messrs. Somerby and Preston. The questions at issue in this hearing are questions of grave importance to the farmers of the Commonwealth, as they are, virtually, whether their lands shall be taken from them, and devoted to other purposes than those of agriculture, contrary to their will, and without leaving them any remedy or means of redress. Such, we understand, is the condition in which this vast tract of land now lies—wrested from the occupation of its owners by the gradual encroachments of water, under the sanction of laws, perhaps, passed in an age when manufactures were deemed of more importance than raw agricultural products, and what is worse than all, passed without giving the person whose lands were destroyed any reasonable remedy for the injury inflicted upon him.

This land lies in one of the most fertile and beautiful of our New England valleys, and is skirted with what were once rich and verdant pastures, and thrifty forests of valuable fuel and timber. Chilled with the accumulation of cold water that is backed up by the flooded meadows, these pastures are covered with innutritious wa-

ter grasses and other worthless plants, while the trees that once stood clothed in thrifty verdure at their bases, are now stunted in their growth, and hung with gloomy lichens and mosses, the fitting funereal drapery of their dead or dying condition.

If this land were remote from railroads, or inaccessible to large villages and towns, its destruction would be comparatively unimportant. But such is not the fact. It lies in the very heart of the most dense population of New England. Numerous county roads of the best character traverse its outlines and cross it in every direction; railroads pass over it and skirt its borders, while the best markets in the country surround it on every side, so that from its centre to its circumference the products of this once fertile valley can be brought to a ready market within the space of six hours!

Formerly the river that flows through this land teemed with fish that periodically came up from the ocean, and thus formed an important article of food to the people. Blue-joint, red-top and other rich grasses covered the meadows, upon which the farmer mainly depended for the winter feed of his cattle, so that the English or high land grasses could be spared for market, in order to raise cash for the payment of taxes, and articles for family use, which could not be produced upon the farm. Thousands of dollars were also annually received for cranberries which grew in spontaneous luxuriance upon these meadows, which, added to the fish in the river and the grass growing upon its banks, gave these lands a value equal to the best uplands of the farm.

Under the present influence of water upon them, these meadows are gradually becoming a vast tract of pestilential swamp. Those that would command \$75 per acre forty years ago, cannot be sold at any price now,—their possession being considered a curse, instead of a blessing. Hundreds of tons of hay—poor in quality now—rot upon their surface annually, while the miasma and pestiferous vapors arising from such vast quantities of decomposing vegetable matter, together with their inability to cultivate or in any way improve the soil, has driven families from their homesteads to seek a living in more favored regions. Dwellings which were once the abodes of thrift and competence, now stand as gloomy monuments of the fatal march of the invader; no feet go in and out at their doors, as they were wont; no hopeful industry scatters the seed, nor grateful hearts beat over an ingathering harvest; no smoke curls from their chimneys, no herds low on the hills or feed in the stalls where once they sought their accustomed food! The land has become a prey to suffering, disease and death, through the mistaken legislation of a former age!

This state of things ought not, cannot continue. It must be clear to all, that any legislation that confers special favors upon one to the detriment of another, cannot promote the best interests of society. It creates dissatisfaction with the laws, encourages litigations and hatreds, and checks the prosperity and happiness of the people of the Commonwealth. The evil of which we have been speaking, is not confined to the valley of the Concord and Sudbury rivers alone—it is felt in nearly every portion of the State, as is made evident from the sympathy and encouragement which has been extended to the petitioners in this case from almost every quarter. And while they do not mean to desist now, or in the future, to seek a lawful remedy for the grievous burdens they have so long borne, and still continue to bear, they have another object to pursue, which is as patriotic and honorable as it is just. This object is to arouse the public attention to the injustice and pernicious tendencies of some of our laws in regard to the flowing of another person's land without his consent, and to secure such legislation as to restore natural rights which have been taken away, and protect property from such aggressions in the future. In this laudable object the petitioners ask—and no doubt will receive—the hearty co-operation of the whole agricultural community.

That laws of such an unjust and oppressive character remain in force at this day shows the forbearing and law-abiding character of our people. For forty years they have diligently sought a remedy in the Courts, and have been turned out of them all, because, forsooth, somebody's great-grandfather had a *vested right* to throw a dam across the river and flow *ten thousand* acres of the best lands in the State, at a time when a single grist mill was worth a whole township of land. Now that the circumstances are reversed, when grist-mills are found on every stream, reached by every road, and are driven by wind, steam and caloric, all over the country, it is time that these *vested rights* should yield to the public good.

Through a long series of years there were two things that would arouse the English people to desperate resistance, more than anything else. One of these was oppressive taxation, and the other *unjust and odious monopolies*. These were granted, more or less, through the reigns of Henry VIII., Elizabeth and James. One favorite had the monopoly of selling all the salt, another all the wines, and so of various articles. So it is in Italy at this day. One family has the monopoly of furnishing all the grey horses, another of the article of tobacco, until so many articles were farmed out to corrupt sycophants and favorites, and the prices demanded for them were so extravagant and oppressive, that these and other exac-

tions became so intolerable in Italy as to cause the bloody outbreak of 1848.

We do not mean to intimate that any pecuniary considerations accrue to the government in the monopolies that exist in our State, *under the sanction of law*—but only that they are relics of an oppressive age, and that their influence upon the people has the same tendencies that they had upon our trans-atlantic brethren.

This great question is already before the people of the State, in country, town and legislature, and we ask our friends to give it careful consideration.

*For the New England Farmer.*

#### POTATO BLAST IN A CERTAIN CASE.

MR. BROWN:—In a late number "Farmer's Boy" labors to prove the cause of decay upon my potato vines a few days after the shower mentioned by me in my statement of facts published in a previous number of the *Farmer*.

He says, "there was a predisposing cause, upon which the rain and sudden change of the atmosphere acted," and gives what he supposes to be that cause. Now if his theory is correct, I am unable to see why the vines within a few rods from those first turning black, and only on eight or ten feet higher ground, should remain green until the middle of October, when they were killed by frost.

In both locations the potatoes were taken from the same basket of seed, and the manure was laid from the same load; therefore, if the seed was previously infected in one case, it must have been in the other. While in the first mentioned location the vines were nearly decayed and the potatoes badly rotten, in the last the vines were green until late in the fall, and the potatoes all sound, except in some hills where the grass was not all destroyed by cultivation.

Your correspondent has given but one cause, while many others acted therewith to bring about the mentioned results, two of which I will mention, *location and soil*.

H. BARBER.

Warwick, Dec. 19, 1859.

SOMETHING WORTH KNOWING.—One day while purchasing a lot of dried fruit, we discovered small pieces of sassafras bark mixed among it, and, upon inquiry, were informed that it was a preventive against the worm. It is said that dried fruit put away with a little bark, (say a large handful to the bushel,) will save for years, unmolested by those troublesome little insects, which so often destroy hundreds of bushels in a single season. The remedy is cheap and simple, and we venture to say a good one.—*Lexington Flag*.

BONES FOR FRUIT TREES.—There is nothing like decaying bones for all sorts of fruit trees. They are perhaps best for pear trees, next for apples, and then for quinces; but are good for any kind of fruit unless it be cranberries, which seem to live and grow on little but air and water. If it is not convenient to reduce the bones in sulphuric acid, break them up small and place them about the roots of the tree.



## EXTRACTS AND REPLIES.

## IS FARMING A PROFITABLE PURSUIT?

"Facts are stubborn things."

*Is farming profitable?*

Mr. Pinkham says not; I would not say it is the most profitable business, but a man can live at it, if so disposed. I was bred a mechanic, but left my trade and took hold of farming, and when I commenced was not worth one dollar. I paid \$4030 for my farm, then had all my stock and tools to buy. I have had the good luck to pay for the farm, stock and tools, and have put on above \$3000 worth of buildings since, and do not owe one dollar to any man. I have made it all from my farm, although farm fences, buildings and interest, have cost me over \$10,000. Let it be worth what it may, I have paid so much, and made it from the farm itself. I have never been in any speculation but farming.

I consider the great secret in farming is, to take hold of one string and pull that steadily when the wind and tide are against you. Keep beating, and you will gain some,—and when the wind shifts in your favor, you are all ready to sail; then comes a good harvest. But the man that shifts every time the wind does, is always beating against wind and tide, therefore he condemns the business he is in, and complains of hard times. I do not brag of being rich, or that our New England farmers can be very rich by mere farming, but I do argue that they may make a good living and lay up a little against a wet day.

A. B.

Barre, Vermont, 1859.

## A FARM OF NINE AND ONE-HALF ACRES.

I think of buying a small farm of only nine and one-half acres, all under a high state of cultivation. The buildings are small, but very comfortable and in good order. The price is \$2200. Can I make it profitable to buy that farm, and set half of it with apple and pear trees, and make a part or the whole of the rest into a garden?

I should like to have Mr. Ed. Emerson, of Hollis, N. H., answer this.

C. L. W.

Westboro', Mass., Dec., 1859.

REMARKS.—Mr. E. is always ready to do good, and we hope he will make it convenient to reply to our young friend. We can readily see the difficulties that lie in the way of replying where surrounding circumstances must have so much to do with ultimate success.

## CURE FOR WENS ON CATTLE.

Can you inform me of a certain cure for a wen? If so, by so doing you will confer a favor on myself and others.

E. A. MORSE.

Townsend, Vt., Dec., 1859.

REMARKS.—We give below two remedies sent to us and published in the *Monthly Farmer* for 1857.

"I take a tin cup, large enough to cover the wen, fill it about half full of unslaked lime, then nearly fill it up with soft soap, bind it on the wen tight, with strips of cloth or straps so that it will not come off. As the lime slacks, it eats the wen completely off. I tie the cow, or ox, to a hook in the

beam in the centre of the stable, to prevent their rubbing off the cup. Let them stand tied four or five hours, and the work is done."

"One year ago, last fall, I had a cow which, from all appearances had a wen growing on her neck; I at first administered a plaster of salt and tar, and drew it to a head, and in the spring I procured fresh green cicuta leaves, and boiled them up and bathed the wen in the solution, leaving the leaves in; it wholly dried up in four weeks, so that she fattened sufficiently for beef. I have known others in this vicinity to cure them with the same remedy and keep them for years. Should you consider this of sufficient worth, you are at liberty to insert it in your valuable paper."

## MOWING MACHINES.

Is there a mowing machine that is suitable for common farm use—if so, which is it? There must be one possessing advantage over the others. Will any machine work over our rough land, if it is tolerably clear from stone? L. B. SMITH.

Exeter, N. H., Dec. 20, 1859.

REMARKS.—There are several mowing machines, one of which we think a large farmer may profitably purchase and use; and there is no one, perhaps, that has not some good quality. Which is the best one, all things considered, we are not able to say, because we have not used them all, and feel unwilling to give an opinion of a machine unless we have used it under our own hands long enough to understand it.

Large stones on a field are an impediment, but they do not preclude the use of a machine, unless they lie very thick. We annually mow orchard land with a machine, where the trees stand only thirty feet apart.

## HUNGARIAN GRASS OR HONEY BLADE.

I have raised some Hungarian grass this year and it is as good as the papers stated it to be last spring. I sowed some pasture land with it last spring, and it yielded at the rate of  $3\frac{1}{2}$  tons to the acre, and at the rate of 32 bushels of seed to the acre. The seed weighs 50 pounds to the bushel; it wants to be sowed soon after planting corn, a half bushel of seed to the acre. It is good to sow when you wish to seed with Timothy. My horse and cattle eat it as readily as the best of hay. I sowed some the 22d of June, which did well.

Painesville, Vt., 1859. HARRISON GRIFFIN.

REMARKS.—A head from the seed, sowed June 29, came with this note, which was large and well filled.

## CROPS ON BLACK LOAM.

Will land that is of a fine black loam, be suitable to raise onions and other garden vegetables, and how should it be manured?

M. W.

West Fairlee, Vt., 1859.

REMARKS.—We presume to plow in plenty of green manure in the fall, cross plow in the spring, and if to be sowed with onions, apply unleached ashes plentifully.

*For the New England Farmer.*

#### TILE DRAINING IN OHIO.

HON. H. F. FRENCH:—*Dear Sir:*—I have just finished reading your valuable work upon "Farm Draining;" more valuable on account of the particular information in regard to tile draining. I have been experimenting some little in this branch of agriculture. I own a farm in this place of about 150 acres. I have often thought that it could be much improved by a system of thorough draining. The soil varies; some clay and some sand; but the subsoil of most of it is a stiff, red clay; it is what most of our Western farmers would call an exceedingly dry farm; but I am convinced that it can be improved, and I have begun my improvements by laying tile. I have often seen notices of tile draining, and their benefits, in most of our agricultural papers, but as yet, have been unable (until the receipt of your book) to gain any satisfactory information in regard to laying tile. I began last spring by "going ahead," instead of being "all right." I laid most of my drains from eighteen inches to two feet, the latter being my maximum; but since reading your work, I am afraid it will be like "Love's labor lost." I am at present draining a springy side-hill, the upland surface of which is a sand ridge, and very full of water. The hill, I find to be of various soils, interspersed very frequently with a ridge of clay, holding water in check. I intended making a main drain through the centre of the piece, of four inch tile, and then running two inches into this diagonally; but fortunately, your chapter upon that subject wholly changed my mind on that point, and I am now convinced that my drains would have been of little or no use had I followed my former intentions. I have a drain along the foot of this hill to the stream, some sixty rods; this is of five inch tile. I shall now drain with two inch, down the hill, putting them fifteen feet apart, and three feet deep. I intend making a vineyard of the hill, which faces the east.

As to the cost of my beginnings, I am not able to give a fair estimate, my ditching being mostly done by myself and man, and the tile manufactured upon my own farm. The price of ditching, here, is from fifteen to twenty-five cents per rod; but I think it can be done cheaper, as all the ditchers will persist in claiming that they cannot dig without a wide top and bottom; but I find that I can work very well with sixteen inches top and four bottom. I have, as yet, no very good tools, not being able to get them; for tiling, here, is in its infancy, most of our farmers not even knowing what they are for, and those who do, are afraid they won't work, or won't pay. I shall recommend them to buy your work, and I hope we shall hear from you often on this subject. As to the price of tile, we are some cheaper than in your neighborhood. I have one of Penfields & Mattice's machines. The grinding and pressing is all done by horses, and at the same time the tile run upon boards about three feet long—one man puts in the boards, cuts off the tile, and takes away the boards again—whilst another feeds the mill. Two men will make about 3000 two inch tile per day; larger ones in less proportion. We make both horse-shoe and sole tile; we sell by the rod, 16 pieces to the rod; 2 inch, 16 cts. per rod; \$10 per 1000; 3 inch, 25 cts. per rod; \$25 per 1000; 4 inch, 35 cts. per rod; \$35 per 1000; 5 inch, 50 cts., or \$31; 6 inch, 75 cts., or \$46 per 1000. A deduction of 10 per cent. will be made on \$100, and all orders over \$10, delivered at the cars free of charge. We shall make pipe tile next season, and think we can sell them at 25 cents per rod, with collars; that is two inch. You speak of soft tile. I am a new beginner, and would not like to sell or use anything which would not be good. It is impossible to burn all the tile red, or so that they have a clear ring; but where they will stand a good soaking, and then a severe frost, do you think it will be safe to lay them? I intend draining a piece of 26 acres next season, and shall follow your plan as nearly as possible; and any further information which you can give me, or refer me to any works upon the subject, will be thankfully received. Hoping to hear from you privately, at some of your leisure moments, and publicly, as often as you get anything new,

I am yours, truly, D. D. BENEDICT.

*Norwalk, Huron Co., Ohio, Nov. 21, 1869.*

TO THE HON. H. F. FRENCH, EXETER, N. H.

\* Color is not the only criterion of the burning of clay. Some clay takes a much higher color than other clay, and some will never become red by burning. Tiles that will not crumble by wet and frost are usually hard burnt enough.

We are glad to hear that draining is going on at the West.  
R. F. F.

*For the New England Farmer.*

#### EDUCATION OF BOYS.

MR. EDITOR:—I have two sons, one aged sixteen, the other fourteen; both active and intelligent as other boys of their age. Their time has hitherto been taken up at school, and they have attended the best school in our town, even a full term at what is called the high school. I have not the means of putting them through a college, and they have no desire to enter one, with a view to engage in either of the learned professions, because they have an impression that a greater part of those who do thus study derive very little benefit from their studies. They are willing to be farmers, if they can be substantial and respectable farmers. They have the means of purchasing a moderate sized farm for each. What will you advise to be done with them? When the project of an agricultural school was first started in the State of New York, I had serious thoughts of sending one or both of them there, to try whether a good farmer could be bred at a school; but I have lately seen that the college founded in Michigan, under the most favorable auspices, has slumped through, which raises a doubt of the success of the New York college, notwithstanding it is favored with the untiring vigilance of one of the best of supervisors, in Mr. Secretary Johnson.

*December 25, 1859.*

P.

REMARKS.—Put your sons on a good farm for two or three summers, where they will earn their living, and at the same time gain such a practical knowledge of their business as the boy does who enters as an apprentice upon any of the mechanic arts. The owner of the farm upon which they reside should be able to direct their operations intelligently, and to call their attention to the theories of the growth of plants and animals, to the advantages of cultivation, manuring and high to

the principle of draining, irrigation, subsoiling, fallowing, tree raising, training of plants for ornament or use, or whatever else will beautify or replenish the earth, and at the same time bless mankind.

The second summer the boys might obtain wages, and then earn something with their own hands to aid in stocking their farm. For one or two winters that succeed their summer labor, they might pursue such studies as would have a direct bearing upon the cultivation of the soil, and make themselves familiar with the theories or experiences of those supposed to understand the matter better than themselves. One winter, however, should be spent upon the farm where a good stock of cattle is kept, so that a thorough knowledge of the modes of winter feeding and tending of the various kinds of stock should be gained.

With a proper reading up of the subject, as the lawyer or the physician reads, and the experience which we have already suggested, we believe a young man may be better qualified to enter upon and manage a farm, than by any other process within our knowledge.

#### UNITED STATES AGRICULTURAL SOCIETY.

The *Eighth Annual Meeting* of the United States Agricultural Society will be held in Washington city, at the Smithsonian Institute, Wednesday, the eleventh day of January, 1860. Other agricultural societies are invited to send delegates.

Important agricultural topics will be publicly discussed, among them "The Establishment of a Department of Agriculture;" "The Steam Plow;" "Physical Geography, in its relation to Agriculture;" "Agricultural Statistics of the next Census;" "The Sorgho and Imphee;" "Under-draining;" and "Forest Trees."

Gentlemen who may wish to become Life Members of the Society, can do so by paying or remitting ten dollars to the Treasurer, Hon. B. B. French, Washington City. This will entitle them, without any further payments, to the full privileges of membership—among these are: free admission to all exhibitions of the Society, the annual volumes of published Transactions, the *Journal of Agriculture*, and the large and elegant Diploma. The fee for Annual Membership is two dollars, which ensures the receipt of the *Journal of Agriculture*.

**POTATOES FROM THE BALL.**—Mr. SAMUEL GUILD, of West Medway, informs us that in the spring of 1858 he planted several potato balls, and procured from them one pint of potatoes, which he planted in the spring of 1859, the yield from which was *one bushel* of large, and fine potatoes.

*For the New England Farmer.*

#### FEEDING CATTLE.

MR. EDITOR:—I observe that a great diversity of habits obtains among farmers, in relation to feeding cattle, hogs, &c. There are some who feed hogs twice each day, others three times, and others more. There are some who seem to pay their porkers for squealing, as they seem not to think of them except when they hear their music; but they pay them for every piece of squealing, as promptly as concert-singers are paid for their performances. Now will the editors and contributors of the *Farmer* please to inform us which of these habits, in common circumstances, will make the best return for provender? I caught up my pen to inquire about cattle; but it pushed off after the pigs.

It is of more consequence than the price of a poll-tax, to any man who owns a single cow, to know how to feed that cow in the best manner to secure her health, or growth, or quantity and value of milk. I would confine my inquiry to the question, How often should she be fed, supposing her common food to be good, dry hay. Is it the case, or not, that frequent feeding, of a little at a time, is unfavorable to a proper digestion of what is eaten? Is the constant uneasiness of cattle, which are thus kept between hunger and fullness, a drawback on their growth of flesh or fat?

I think a man who appeals to the laws of chemistry and physiology, as generally understood and applied, without consulting the man at the barn, will be quick to answer. But what will "the old man at the barn" say? I do not mean old Mr. Skinflint, who thinks it a saving to make his cattle eat up their hay so close that they would almost eat pea-brush, to fill their vacant stomachs; I mean the man who raises as good, and large and healthy cattle as can be found, and does it by plain feeding. I want to get the opinion of that old barn-taught cattle-grower, on this important topic.

It looks quite to me as though a good, satisfactory meal, with full time to digest it before feeding again, would do best; and I am not satisfied without the opinion of "the old man at the barn;" for nature itself is the only correct chemist and physiologist; and the old cattle-grower has had such an opportunity of seeing results following her experiments, as many of us would like to profit by.

Mr. Editor, if you will put the question to that old stable-physiologist, and return us an answer through the columns of the *Farmer*, you will very much assist some inquirers. In the meantime, will you give us your opinion upon the point?  
*Lee, N. H., Dec., 1859.* c.

REMARKS.—This is the kind of agricultural knowledge that should be well understood. We have no doubt, whatever, that regular feeding of *three or four* times in twenty-four hours is the best. Begin in the morning with a feed of the poorest hay that you must use, and continue with better hay until the appetite is nearly satisfied. Then leave them clean mangers until noon, feed again, and so at night. We gain this opinion from an actual experience in various ways of feeding.

*For the New England Farmer.*

### FANCY FARMING.

MR. EDITOR:—Your Chelmsford correspondent has made use of an expression in his last communication, which I propose to make the text of a few remarks. I have nothing to do with his notions about the unprofitableness, the unhealthfulness, or the demoralizing influence of New England farming.

He very kindly advises "the lawyers, the doctors, the preachers, and the soft-hand gentry generally, to observe the familiar adage, 'Shoemaker, stick to thy last.'"

I think he has intimated that farmers cannot live by their legitimate occupation, but are obliged to resort to trading, and other occupations, to eke out a living. Now, why may not men of other vocations enjoy the same privilege. If they find it a matter of necessity to resort to a little farming to eke out the deficiencies in their business, why should the farmers complain? And if they should, at times, talk a little about their "little farming," why should anybody object to this? Farming is a business in which an earnest, simple-hearted man may become very deeply interested, and if he should write his thoughts about it, or seek to obtain more knowledge about it, why should he be told to "mind his own business?"

The farmer, when he wishes to know anything about law, or medicine, or theology, very naturally consults the lawyer, the doctor, or the preacher, and when they wish to know anything about farming, they very naturally consult the farmer. Whom else should they consult? Does not friend Pinkham claim the right to know anything about law, medicine or religion? Does he confine his attention exclusively to his farming? Perhaps he has done so, and this is the reason why he is so much in advance of other men in agricultural knowledge. But if he were prohibited from attending to law, medicine, religion or politics, I think I am safe in making the inference, from the spirit of independence he shows, that he would be among the first to join "a tea-party" or even the "Continental army." The farmers are not bound to follow as authority the crude speculations of inexperienced men, and I trust they generally have discrimination enough to select the good, and cast the bad away. But why other men have no right to interest themselves in farming matters, I confess that I, a New England man, cannot understand. The attempt, in the same connection, to cast a slur upon professional men, and diminish their influence by calling them "soft-hand gentry," is, to say the best of it, indicative of a sad want of taste. Why should he, of all men, reproach others for not making their hands hard with labor, when he is striving to show that laboring upon the soil is both unprofitable and demoralizing? But seriously, who are the "soft-hand gentry" to whom your correspondent refers? Are they not, for the most part, the sons of New England farmers, brought up upon the farm, and accustomed to till the soil in their early days, and still bearing in their hands the marks of youthful toil? Did not many of them leave their paternal acres, that younger brothers might occupy them? Have not many sought other occupations through the influence of just such ideas as Mr. P. is advancing, viz.: that farming is a hard and unprofitable

business? These are old ideas that have been repeated over and over. If any have sought other occupations from such influences, it seems to me peculiarly unfair now to reproach them for being soft-handed, which, I take it, means, not working for their living.

If there is any class of men in New England who are hard-working men, it is the professional men. They labor hard to acquire the preparation for their professions, and they labor in the practice of them more hours than do farmers or mechanics, and their labor, too, is of a kind which is more exhausting both to mind and body. From various reasons, many professional men, as well as mechanics and merchants, engage more or less in agricultural pursuits. Some from want of success in other pursuits; others, because they find as they advance in life, a taste for the pursuits of their early youth reviving within them. But more, because the cultivation of the soil is the natural employment of intelligent men, an employment in which they can indulge their tastes and find an innocent occupation, at the same time promotive of health and enjoyment. Why should not such men bring into exercise in their agricultural pursuits the intelligence and the careful habits of observation which they have acquired in their previous occupations? If any of them have acquired wealth, and are disposed to make experiments, and see fit to publish the results, why should practical farmers complain? Are they injured by it?

May not the unfavorable result of an experiment, made by some one who can afford the loss, deter them from a ruinous expenditure? All the slang about "gentlemen farmers," "soft-hand gentry," "book-farmers," and assertions that most of the agricultural books and essays are written by men who are not "practical," "mere theorists," is simply contemptible. It is mostly used either by very ignorant men, or by men who are very conceited, and wish to set themselves up by pulling down others. Some who have acquired a good deal of information by conversing with scientific men, with men who have read and thought much, and given them the results of their studies, undertake to ridicule science and books. These men, who have thus acquired all they know from books at second-hand, who are really indebted to the researches and experiments of science for all their own success, ought to take a higher position, and exert a better influence upon the rising generation of farmers.

Who is the practical man? Is no man practical except he who labors the whole time with his own hands? Is not he a practical man who tests opinions and theories by experience; who refuses to accept theories until they have been confirmed by experiments made by himself, or by others on whom he can rely? May not a man be eminently practical, and not labor with his hands at all? May he not have a practical mind, and be a careful observer and a close thinker, and his opinions and judgment be worth vastly more than those of the mere routine laborer? Some men learn nothing by experience. They have not learned how to learn. Other men by making the facts which they observe the subject of thought and study, rapidly acquire wisdom by experience. The experience of a few years is worth more to them than the experience of a life-time is to others; and just in proportion to their ability to draw accurate re-

sults from the facts they observe, is the value of their opinions, whether they are soft-handed or hard. The farmers in Massachusetts are more indebted than they are aware, to the efforts of the preachers, doctors, lawyers and commercial men, for all the improvements in agriculture, and for the development of the agricultural capacities of the State. This might be abundantly proved by a sketch of the history of agriculture in this State. But I have already occupied too much of your space, and must bid you adieu. H. S.

*For the New England Farmer.*

#### "COSTS MORE THAN IT COMES TO."

This phrase has much meaning in it, and is worthy of being borne in mind in most enterprises. In none more than in the labors of the farm.

We see persons expending large sums in clearing stones, building walls, filling quagmires, leveling knolls, &c. &c., without once computing how the account is to be balanced. We hear of premiums offered for the largest products upon an acre, without regard to the use of means by which they are produced. All such enterprises are visionary and discreditable. The only sure mode of proceeding is to contemplate the end from the beginning; and to take into view, as far as practicable, all intervening incidents.

Fancy farmers may derive benefit from these considerations. Those who drive fast horses, or magnify their oxen beyond reason, will find in the end, it would have been better to count the cost before they started. The same may be said of those who attempt to force all their products out of a single acre. I have often doubted whether the attempts of those, who look upon themselves as the guides of others, were not mistaken in these matters. Instance, when premiums are offered for the greatest quantity of Indian corn, grown upon an acre, not less than *one hundred bushels*; is such an offer wise? I think not. Because, under extraordinary circumstances, one hundred bushels of corn may have been produced upon a single acre (though I have never witnessed such product,) it is no good reason why this amount should be fixed as the minimum crop, for which a premium should be awarded. All the circumstances of the case, the quality of the land, the appliances made, the variety grown, the peculiarities of the season, are to be taken into view, and when these are considered, that experiment which presents a result most worthy of imitation and commendation, is the one for which a premium should be awarded. P.

*December 26, 1859.*

**FRUIT IN MICHIGAN.**—While the rich soil and bleak winds of the Western prairies appear rather unfavorable to the growth of fruit, Michigan presents unusual inducements to the fruit grower. A single firm have this season purchased near five thousand barrels of apples in the village of Clinton, Lenawee county, and some fifteen hundred in Tecumseh. A correspondent of the *Michigan Farmer* says fruits mature at Detroit nearly or quite as early as in central Ohio, two degrees further south.

*For the New England Farmer.*

#### HISTORY OF FOUR PEAR TREES.

I sent you a little history of my flower garden, some two or three years ago, which was so favorably received, I now send you the history of four pear trees. I write the account, partly for my own amusement, but more to add another word to the many already said and written on the subject of setting out trees.

Forty years ago, the person now owning and living on the farm from which I write, set in his garden four small pear trees. The soil was favorable; they thrived finely, with no extraordinary care, and were in full bearing in a few years, affording two varieties of good pears; one ripening the last of August, the other about four weeks later; thus affording fruit in abundance for a large family, besides much to dispense in a friendly way to friends and neighbors; but the great good resulting from two hours' labor is yet to be told.

Hundreds of seedlings have sprung from the seeds, from imperfect fruit decaying under those trees; those seedlings, being removed to favorable situations, have since been grafted with all the varieties of pears that flourish in this latitude, and there are many of a delicious quality; the Bartlett growing in great perfection here; the Seckel, the Flemish Beauty, and many others which I will not take time to name.

The seedlings springing from those noble pear trees have been sent in all directions, and rare plants for the flower border, fine young fruit trees, choice grape vines, and much that is desirable, have been received in return; not only has a double benefit arisen from that two hours labor forty years ago, but a kindliness of feeling has been promoted between persons hitherto unknown; and an interest exists relating to the success of each other in gardening, increasing the taste for the same, which is so promotive of good health, and which so adorns and beautifies, many of our New England homes.

*North Hartland, Vt., Dec. 29, 1859.*

*For the New England Farmer.*

#### BUTTER MAKING IN WINTER.

**MR. BROWN:**—I will merely mention my experience in making butter in winter, hoping it may be an advantage to Mr. Leonard, for I should think it would be a real trouble to lose, or about lose, the use of his cows. I set my milk, after being strained through a cloth strainer into a kettle of hot water, occasionally stirring it in order that the cream or scum shall not rise until it is nearly scalding hot. Then it is set in a cupboard in the room where we live, which proves about the right temperature, and the cream will rise in about thirty-six hours. It is then taken off and set in a cold room, and so repeated until enough is gathered for a churning. The cream is then set in a warm room until it is the right temperature to churn. I only churn from five to fifteen minutes, and never have lost but one churning in ten years' experience. Two years ago I made in the same manner one hundred pounds, which sold in our village at the highest prices. Carrot juice is an advantage to both taste and looks.

*Reading, Vt., 1859.*

A SUBSCRIBER.

*For the New England Farmer.*

### A NEW TRIAL TO BE MADE IN FARMING.

MR. EDITOR:—I have been amused as well as edified by the several pieces which have appeared in the *Farmer* lately concerning the "profits of farming." I notice a wide difference of opinion betwixt some of your correspondents, and am inclined to believe that either one is nearer right than the other thinks him to be. The fact is, farming is some like the United States Constitution, it can be made to read either *pro* or *con*. Being a constant reader of the *Farmer*, I think I glean a great deal of valuable information from its columns, but perhaps a little practice will do me some good; people will often learn something by expressing their own opinions, that they would not while listening to others.

About a year ago, wishing to settle in some business, and having a capital of about \$800, after careful deliberation I concluded to enter the list of farmers; accordingly I purchased an old worn-out farm of one hundred acres, up here amongst the Green Mountains, for which I paid \$1200, and after buying necessary tools, a "um and some other stock, I find myself in debt about \$800. Now, I think, Mr. Editor, that if farming cannot be made profitable by me, at least, I shall soon find it out, and you shall be duly apprised of the fact. It is evident to me, however, that farming in this section is not made to pay, at present. The land generally is uneven and stony, and is better adapted to the dairy business, raising stock and fruit, than to raising grain. The most of the farms about here were bequeathed to the present owners by their ancestors, and they, in turn, will leave them to their children, the land continually growing poor, and each succeeding tenant poorer. How long they will last in this way I don't know, for they were worn threadbare years ago, each generation doing their best to rob those who may come after them. I suppose this is the kind of farming friend Pinkham refers to that don't pay. I believe he does not say farming won't pay—but we will see. I am going to know, and I believe some of my neighbors are thinking about it for the first time, too.

We are about forming a farmers' club in this town, but it is rather dull work; the most of the farmers either think they know enough, or they don't care; there is not much of a revival yet, but we have some hopes of one. I will add, by way of general information, that I believe this to be poorest section for farming in the State. It is located about twenty-one miles west of Connecticut river. Springfield, our nearest city, is about thirty miles, and Northampton, the nearest town of any importance, is twenty miles distant; the nearest railroad station is sixteen miles.

GREEN MOUNTAIN BOY.

Cummington, Mass., Dec., 1859.

### PRICES OF FARMS AND STOCK IN KENTUCKY.

—We copy a few items of recent sales. A farm three miles from Shelbyville, of 234 acres, sold for \$74 40 per acre; an unimproved farm of 108 acres in the same county, for \$50 per acre; a farm one mile from Mt. Sterling of 330 acres at \$93 15 per acre; another of 160 acres at \$125 per acre. In

Bourbon County, two-year old mules brought from \$80 to \$125 75. Two hundred Mexican mules bought \$80 20 per head. One auctioneer sold 14 horses at an average of \$134 85. In Scott, 50 mules sold for \$155 each. In Madison County, 250 hogs on foot, averaging 434 pounds, were bought at \$4 per 100, gross.

*For the New England Farmer.*

### LUNAR INFLUENCE UPON THE TEMPERATURE.

MR. EDITOR:—In compliance with the request of your able and gentlemanly contributor, "N. T. T.," of Bethel, Me., in a communication in the November number of the monthly *Farmer*, p. 526, in which, in referring to myself, he says, "I wish your correspondent would give us the average of the temperature of high and low moon for a number of years past in September and October. Also, answer this question: Do we seldom have a frost till the full moon, or two or three days after in September? And do we not almost invariably have a frost at this time?" I give in answer the date of all the frosts that have occurred in September in Springfield, (in latitude 42 degrees, and elevation above the sea about 225 feet,) according to my record for the last four years; and for the convenience of the reader, put the date of new and full moon in connection. I also give the "average temperature of high and low moon" in September and October, for the same length of time.

I will first, however, correct a mistake by which "N. T. T." was led to say—"His observations, seventy-four in number, on the mean temperature of high and low moon giving almost three degrees colder in high than low moon, is as wide a difference as I should expect," &c. Instead of saying .29° (twenty-nine one-hundredths of a degree) as I intended, I was made by the types to say 2.9° (two degrees and nine-tenths,) varying the statement quite essentially; but the figures in the table were correctly given, and consequently contradicted the error. I was also, by a similar accident, made to say "I find the average of the observations to be 22° (twenty-two degrees) lower when the moon was high," &c., instead of .22° (twenty-two one-hundredths of a degree,) as I intended—simply by the misplacement, in one instance, and omission in the other, of the decimal point.

The dates of all the frosts that have occurred in September in the last four years, their extent in regard to severity, and the minimum temperature of the day on which they occurred, and the date of new and full moon in the same month, for the same length of time, are given, as follows:

Date.	Extent.	Min. Temp.	New Moon.	Full Moon.
1856, Sept. 25.....	very light.....	33°.....	28th.....	14th.
1857, " 8.....	" " " ".....	33°.....	}.....18th.....4th.	
" 19.....	" " " ".....	30°.....		
" 30.....	ice formed.....	30°.....		
1858, " 23.....	" " " ".....	30°.....	}.....7th.....22d.	
" 25.....	heavy white frost.....	32°.....		
" 26.....	" " " ".....	32°.....		
" 27.....	" " " ".....	34°.....		
" 28.....	light.....	37°.....		
" 29.....	ice formed.....	28°.....	}.....26th.....12th.	
1859, " 7.....	very light.....	33°.....		
" 8.....	light.....	37°.....		
" 9.....	very light.....	40°.....		
" 15.....	severe.....	31°.....		
" 16.....	" " " ".....	34°.....		

In the above statement your correspondent may be hardly able to trace a semblance of connection, between the occurrence of frosts and full moon, but with the limited period of observations I am able to give, I am still slow to adopt the idea of a greater tendency to frost, at or near full moon than at other times. It would be more interesting and satisfactory to have more extended data from which to judge.

The following table gives an average of the mean temperature of three days at each "high and low moon" in September and October for the last four years, according to your correspondent's request:

Years.	High Moon.	Low Moon.
1856.....	55.94°.....	62.04°.....
1857.....	55.16°.....	47.17°.....
1858.....	51.19°.....	53.39°.....
1859.....	61.50°.....	49.95°.....
Mean.....	53.67°.....	53.14°.....

It will be seen from the statement above that the mean temperature is fifty-three one-hundredths of a degree higher at high moon than low—against the opinion advanced by your respected correspondent, "N. T. T.," yet I would not have any one conclude that this brief number of observations settles the matter either for or against the theory. I have given these figures at the gentlemanly solicitations of "N. T. T.," who is, however, personally unknown to me; but I would say that my suspicions in the matter—that the influence of the moon upon atmospheric temperature is so slight that no connection can be traced between it and the occurrence of frosts, either in spring or autumn, or at any season of the year—have been rather strengthened than weakened.

In another place in his communication your correspondent remarks, "I wish he would make his average for the five successive summer months for a series of years, commencing with May, and let me have the result." Here it is; and not knowing which would be preferred, high and low moon, or new and full moon, I give both, for reasons given in my former article, as follows:

Years.	High.	Low.	New.	Full.
1857.....	60.01°.....	65.42°.....	63.89°.....	63.01°.....
1858.....	63.31°.....	62.73°.....	60.55°.....	60.71°.....
1859.....	65.09°.....	61.91°.....	60.65°.....	65.34°.....
Mean.....	62.83°.....	63.36°.....	63.67°.....	62.97°.....

My preconceived opinion, I must confess, was against this theory, but as I commenced my research merely for the sake of truth, let it favor which side it might, I will now review the statements I have faithfully deduced. In the observations on high and low moon for three years, given in my former communication on this subject, (p. 494 of monthly *Farmer*,) the result was .22° in favor of the theory; and the result of observations on new and full moon, given in the same article, was also .29° in favor of it; the table of frosts in this article, may be construed to favor it, or conflict with it, while the result of observations on this subject in September and October, for four years, gives .53° against it; and the result of observations on high and low moon for the five warm months for three years, also gives .52° against it, and the same on new and full moon, for the same length of time, .75° against it.

I am not yet prepared to hazard any settled conclusion on this subject that would conflict with

general public opinion; for I find that the opinion advanced by your correspondent is also more or less prevalent in this region. Yet, from the record I have studied, I see no particular evidence in its favor. I can but hope, however, that some one, who has the means to do so, will continue the investigation and, if convenient, report.

The reason why I have given observations on new and full moon, and also on high and low moon, is, that they do not often occur in conjunction, or at the same time, and that public opinion upon new and full moon, in this connection, regards it synonymous with high and low moon, whereas the contrary obtains. It is evident that the moon must exert her greatest influence upon our atmosphere at the time she passes nearest the zenith, unless it can be proved that heat is reflected from her surface as well as light; which, if it be the case, would conflict with the popular notion of its being colder at full moon.

J. A. A.

Springfield, Mass., Nov. 25, 1859.

For the New England Farmer.

#### LOOSE BARK ON APPLE TREES.

MR. EDITOR:—In a late number of the *Farmer* your correspondent informs us that the bark on the south side of his apple trees became black, and ultimately was disengaged from the body of the tree. He asks for the cause and remedy. The first cause, perhaps, is in consequence of the high state of cultivation of his lands, which renders the trees very thrifty, and consequently more tender. Then, after a tight and severe frost, the weather becomes very warm, which, in his case, starts the sap on the south side of his trees, then a sudden change of the weather from warm to severe cold and frost chills the sap, and consequently disengages the bark from the trees, and produces the result complained of.

In 1830, in January, the weather became very warm, the frost all came out of the ground, and also out of the trees. The wind suddenly changed to the north, and the frost became very sudden and severe, the result of which was, the loss of many, very many apple trees in the same manner as represented by your correspondent. The most thrifty trees suffered the most.

Yours, OLIVER M. WHIPPLE.

Lowell, Dec., 1859.

THE BEURRE BOSC PEAR.—The original of the beautiful illustration of this pear, which we gave last week, we forgot to mention, was furnished by the Hon. MARSHALL P. WILDER—being one of a crop produced in his orchard at Dorchester. Our thanks are due him for this and other similar favors.

GUANO.—According to Official Returns published in the *Mark Lane Express*, there were imported into the British "United Kingdom," in the nine months ending September 30, 1859, 64,984 tons of guano; during the corresponding period of the year 1858, there were imported 269,878 tons. More than four times as much last year as this year.



*For the New England Farmer.*

#### DISEASED APPLE TREES—SELF-ACTING WELLS.

MR. EDITOR:—Having been in the situation represented by your correspondent of Still River respecting "diseased apple trees," I have sympathy with him, and will tell him that I planted an orchard of trees from western New York in the spring of '55, and in the spring of '56 found them in the condition represented by him. I lost some of them, but could have saved nearly all, had I been in possession of the information that I have since acquired. Experience I had but little, but believing it to be the effect of exposure to cold, being in an exposed position, I set about for repairs. My first step was to make a batch of grafting wax, which may be made as follows: One pound tallow, two pounds bees-wax, four pounds rosin; all pure and clean articles: put the whole into an iron pot and heat them till they come to a foam; then turn the heated wax into a tub of water; then with greasy hands work thoroughly. With a sharp knife cut off the dead bark, and apply the wax, and put about the roots of the trees a bushel or more of chip manure, and when you find a tree-top cannot be saved, cut it off near the ground where the wood is green; cover the stub with wax, and protect the first sprout that comes of a thrifty appearance, and cut off all others. Cut off all dead branches, and wax over the end of the limb next the tree. In this way I saved eighty of an hundred, many of them in the condition spoken of by "Still River." The manure should be applied immediately, and the waxing in a warm day; in the spring I apply to each tree a small handful of unleached wood ashes. The ground should be put to a hoed crop for four or five years at least. Care and anxious attention by him, will save his trees. O. W. D.

*Goshen, Vt., 1859.*

REMARKS.—We have no means at hand of referring you to the Proprietor of the Self-Acting Well.

*For the New England Farmer.*

#### BUTTER IN WINTER.

In my reply to your "New Bedford correspondent," I, last week, gave some views on this subject, and promised soon to render other information. This I could not acquire until I saw the result of this morning's churning.

Here, the churning is done once a week, and from cream obtained by feeding "meadow hay" only. Better feed, sure, ought to give better cream! The milk of night and morning, during winter months, (as before said,) is thoroughly scalded immediately after milking, and straining. The past week, during sudden changes of weather, the milk after scalding and being placed away in the pans, accidentally became frozen solid. The cream, however, (partially at least,) had risen. But it was so solidly frozen, it had to be scraped off with a spoon, and in such state, was placed away, thinking it worthless. This morning, however, it was thawed out by putting the cans holding it into hot water. This was the condition of all the cream churned this day. The result was, most excellent butter in thirty minutes churning, and the

"butter-milk" remaining could not be distinguished from new milk from the cow. I would also say, the cream from milk that has been scalded never has a bitter taste, as is generally the case with cream from milk not scalded. This, sure, is a gain. Let, therefore, no one object to a little "pains-taking" in the scalding of milk, as it surely saves so much labor in churning, and oftentimes saves the whole week's product of cream from being lost.

Now, Messrs. Editors, for all this rendering, can any one give me any information as to the churn advertised with you the past summer, that would produce good butter from "butter-milk" in five or ten minutes churning? As the Scripture says, "Come over and help us." OAK HILL.

*Dec. 23, 1859.*

#### EXTRACTS AND REPLIES.

##### CULTURE OF CRANBERRIES.

I have a cranberry bed about nine feet square, from which I picked twelve quarts of handsome berries, although the grass is as thick as the vines; the soil is wet and springy, but not boggy; I would like to know the best way to increase the size of the bed, and whether it should be flowed or not; if flowed, at what time, and how long?

GEORGE EDDY.

*North Providence, R. I., 1859.*

REMARKS.—Increase your cranberry patch by covering a square rod by the side of the old bed with gravel, so as to cover all the grass, and in April next set it with vines within six or eight inches of each other. The vines may be taken from the meadow with a little tuft attached to them. Pull out all the grass when you set them, and never allow that, or weeds, to grow among them afterwards. Put up a board, edgewise, around the bed so as to rise three or four inches above it, and then, outside of the board dig a little trench a foot wide and four inches deep, to prevent the grass growing into the bed. Give us the result.

We do not think flowage necessary, unless to kill worms or prevent damage by frost.

##### VEGETABLE MOULD FOR MEADOW LAND.

Will it answer to draw a rich mould on to a piece of old meadow, broke up last fall, without making a compost of it? The mould appears to be decayed vegetable deposit, out of which I drained the water last fall. A. D. HOLT.

*Salisbury, 1859.*

REMARKS.—Peat, or muck meadow land would not be materially benefited by the application of vegetable mould. Such land abounds in vegetable matter, and needs sand in some form. Would it not be better to apply the mould to the high lands and a dressing of sand to the meadow?

##### PRUNING PINES.

I have about thirty acres covered with a thick growth of pines, from twelve to fifteen years old.

If any of your readers have had experience in thinning out and trimming up such trees, I wish they would tell me whether it is better to trim and thin out, or to let "nature take its course."

N. B. SAFFORD.

*White River Junction, Vt., 1859.*

REMARKS.—This is a matter not well settled. We know of some experiments in pruning that have resulted favorably. Shall be glad to hear from others in relation to the inquiry.

#### CRANBERRY CULTURE.

I learn from the *Ploughman* that the experienced editor had four rows of plants twelve rods long, which continued to do well and improve for three years, so long as he kept the grass and weeds away from the plants; but the fourth year, when no attention was given to them, they failed to do well. I should like to inquire of the veteran enthusiast, if he knows any other variety of plant that would not fail under such circumstances?

I have known the cranberry cultivated five years successively on the same ground, yielding a bountiful crop of superior berries each year, always having been watched with vigilance that no extraneous substance should check its growth. I cannot think that any valid argument can be brought against the culture and growth of the cranberry, from the facts stated in the *Ploughman*, any more than there could from the failure of a field of corn that was neglected to be hoed. Crops are ever the reward of vigilant attention; and no crops the contrary.

*December, 1859.*

#### WINTER BUTTER.

In answer to friend Leonard's inquiry how to make butter in cold weather, I will tell him how I practice. I heat my milk by putting it into a strainer pail, and set it into a kettle of hot water; heat until nearly scalding hot; set it in a cupboard with a cloth hung in front, in a room where there is a fire kept through the day; it will keep from two to three days. I am careful to skim it before it sours; keep the cream in the same room, and as near summer heat as I can. I never heat the cream before churning, but scald the churn before putting the cream into it. I add a little carrot juice to the cream when I churn it. It will puzzle the best judges to tell the butter that I am making this winter from that made in September.

*Dec. 22, 1859.*

BUTTER MAKER.

#### STOVES—PEAT—IRON—RUST.

Can a cast iron box be made with front and bottom grating to put into a wood-stove, so as to burn coal in it?

What is the comparative value of the best peat and wood or coal?

Is there some kind of cement or solder, that can be put on the inside of a tin wash-boiler, to prevent the clothes from iron-rusting?

*Georgetown, Mass., 1860.*

N.

REMARKS.—You can get a stove with a lining calculated to burn either wood or coal; or if you have a stove the top to which can be taken off to give room to put in the grate, you can fit it up

yourself. We have not the information at hand in relation to value of different fuels, but a ton of hard coal is considered equal to two cords of the best wood.

#### BUTTER AND CHRYSANTHEMUMS.

In reply to E. Leonard's inquiry about "butter-making in winter," I will give my own method, which may, perhaps, be of some use to him. I scald the milk in a kettle used for the purpose, —being very careful that it does not burn,—then place it in a cool closet. In three or four days, skim. Scald the churn before putting in the cream. The butter will come in from ten minutes to an hour, at longest.

Will some one please inform us through the *Farmer* how to bring chrysanthemums to the greatest perfection.

B.

*Somerset, Dec. 16, 1859.*

#### COST OF KEEPING OXEN PER WEEK.

Will you or some of your readers please inform me what would be a fair price a week for keeping a yoke of oxen through the winter, on good hay—the oxen not to be worked—the keeper to have the manure. Ought they to have meal, to be in good working order in the spring—if so, how much meal a day—and price a week on hay and meal.

A READER.

P. S.—If the oxen are worked—but not by the keeper—what feed should they have, and what is a fair price for keeping them a week.

*Billerica, Mass., Dec., 1859.*

REMARKS.—We leave a reply for some of our readers better informed. Of course, the age and size of the oxen would have much to do with it. As a general rule, we suppose that cattle eat about three per cent. of their live weight, so that an ox weighing 1500 pounds would require 45 pounds of hay per day.

#### SHEEP.

Sheep highly fed with meal or other good provender, about the time the buck is with them in the fall, will almost invariably have two lambs apiece. So says one of the greatest sheep-breeders. The lambs, also, may nearly all be raised by proper attention to the mothers. The great mistake in regard to sheep is in not keeping them well enough. If you wish them to be prolific or profitable, give them plenty of the best hay through the winter, meal daily, and for shelter, a warm barn-cellar wherein is an open tank of pure water.

P.

*Colebrook, N. H., Dec. 5, 1859.*

THE TURNIP CROP IN ENGLAND.—We find considerable complaint in our English papers of the failure, this year and last, of this important root. Caterpillars that attacked the blade, grubs that mined into the root, blight that checked its growth, and finally, a frost that occurred on the 22d of October, are among the casualties enumerated, this season. At some of the late meetings of farmers, the opinion has been freely expressed, that some substitute must be found for the Swedes.

### SETTING AN APPLE ORCHARD.

The setting of an orchard by any one, young or old, is a work of too much importance to be done indifferently, or without that careful consideration which any work demands that is to remain for fifty or a hundred years, and that is to stand both as a work of utility and beauty. Few persons who plant an orchard can reasonably expect that all its profits will accrue to themselves; for if it is well done, it should last seventy-five years, at least, and if it is poorly done, there will be no profit from it. They work, therefore, for another generation, and that work ought to be done so as to elevate, beautify and make profitable,—that in the end, the earth shall be so fruitful, and all material things so blending and co-operating with it, that the mind itself shall be drawn into harmony, and this fair land of ours truly become the garden of the Lord.

It is with this view of the matter that we shall reply to the inquiries of our respected correspondent in the following letter:

DEAR SIR:—I wish to put out an orchard the following spring on the soil here described; a pine surface soil from six to fifteen inches in depth, underneath which is a subsoil of gray and red clay, termed in this section, "hemlock soil," compact, and very retentive of water. I wish you, through your columns, to give advice in regard to setting the trees, and answer the following questions.

1. How far apart should the trees be put?
2. What method is best in making the root bed?
3. Would you fill in the bottom with small stones?

An early answer through your columns will oblige greatly an old reader and subscriber.

Colchester, Vt., Jan., 1860.

A. A.

As the writer is evidently going to work considerably in his enterprise, and desires to do all things well, we will allude to one or two things before making a direct reply to his first question.

The thrift, continued prosperity and profit of an orchard, like other crops, will depend, mainly, we think, upon the condition of the soil upon which it stands. If the soil is "compact, and very retentive of water," little profit will be likely to accrue from it, whether devoted to an orchard or any other crop. The first step should be to drain it, and if the labor to do this is found too heavy and expensive, commence upon one edge of the piece to be appropriated to trees, and drain the water off to the depth of three or four feet, if it is practicable. After this, plow a foot deep, or two if you can, manure highly, and work it in intimately with the soil. When this has been done, the field is ready for the reception of the trees. Now comes the question as to the distance apart which they should be set. This depends much upon circumstances. If one is a young man, has a large farm and plenty of team to do a good deal of plowing, with manure to cover many acres, forty feet apart is not too much for the trees. Under the

most favorable circumstances, the branches of these trees would never meet so as to obstruct their growth, or in any manner to interfere with each other. If the land under them is kept properly cultivated and manured, they would probably cover its whole surface, and the results would be all that ought to be expected from a good orchard. If, on the other hand, it is desired to plant an orchard on hilly and rocky land—where apple trees often thrive the best—and where plowing and the application of manure would be quite expensive, we should certainly advise to occupy a less breadth of soil, and place the trees *thirty feet* apart, or even *thirty feet* one way and only *twenty-five* the other, with the view of shortening them in a little after the lapse of twenty years, if their branches should meet, rather than encounter a soil so expensive to work. In the case, also, where a person has a decided taste for the cultivation of apple trees, and wishes to occupy a considerable portion of his time in that particular item of farm industry—and where he does not keep a strong team of oxen or horses, and is limited in his manurial agents,—but still wanting a considerable number of trees, we should advise to set them within *thirty feet* of each other.

The second question of our correspondent,—"*What method is best in making the root bed?*" has been pretty nearly answered in what we have already said about the preparation of the land. But, briefly, we would suggest to lay out the field at whatever distance is thought best, then dig the holes five or six feet in diameter and eighteen inches to two feet deep, throwing the black soil on one side, and the yellow or subsoil on the other. When this is done, return the black soil to the bottom of the hole with any old, well-decomposed manure, and the bed for the tree is ready. The centre of this hole should be the exact line in both directions, and while one person holds the tree steadily in its proper position, another should carefully single out all the small as well as the leading roots, making them radiate in every direction, and cover them with fine and rich black earth. The space under the base of the tree should also be filled with soil, so that no roots be left to gather mould and then decay. The tree should be set at the same depth in which it grew, and some excellent orchardists say with the same side to the sun. The black earth may now all be returned to the hole, and then the subsoil, which completes the work. A good tree set in this careful manner will make more growth in six years, than one of the same quality indifferently set will in ten years, and the probability is that in the course of fifteen years it will many times repay the cost of the extra care it had received.

In reply to the third inquiry, we would say, that if the surface abounds with small stones, and the

land is not well drained, it certainly would afford some scope and protection for the roots if underlaid with a liberal bed of stones; they would tend to a more rapid drainage immediately about the tree, and if the spaces between them were filled with loam, the roots would travel and find supplies there. We cannot see that they would be injurious under any circumstances.

### THE WINTERS.

BY FRANCES BROWNE.

We did not fear them once—the dull gray mornings  
No cheerless burden on our spirits laid;  
The long night-watches did not bring us warnings  
That we were tenants of a house decayed;  
The early snows like dreams to us descended;  
The frost did fairy-work on pave and bough;  
Beauty, and power, and wonder have not ended—  
How is it that we fear the winters now?

Their house-fires fall as bright on hearth and chambers;  
Their northern starlight shines as coldly clear;  
The woods still keep their holly for December;  
The world a welcome yet for the new year,  
And far away in old remembered places  
The snow-drop rises and the robin sings;  
The sun and moon look out with loving faces—  
Why have our days forgot such goodly things?

Is it now the north wind finds us shaken  
By tempests fiercer than its bitter blast,  
Which fair beliefs and friendships, too, have taken  
Away like summer foliage as they passed,  
And made life leafless in its pleasant valleys,  
Waning the light of promise from our day,  
Fell mists meet even in the inward palace—  
A dimness not like theirs to pass away?

It was not thus when dreams of love and laurels  
Gave sunshine to the winters of our youth,  
Before its hopes had fallen in fortune's quarrels,  
Or Time had bowed them with its heavy truth—  
Ere yet the twilights found us strange and lonely,  
With shadows coming when the fire burns low,  
To tell of distant graves and losses only—  
The past that cannot change and will not go.

Alas! dear friends, the winter is within us,  
Hard is the ice that grows about the heart;  
For petty cares and vain regrets have won us  
From life's true heritage and better part.  
Seasons and skies rejoice, yea, worship rather;  
But nations toll and tremble even as we,  
Hoping for harvests they will never gather,  
Fearing the winter which they may not see.

**PLACE FOR THE ADDRESS.**—The *California Farmer*, in commenting on the late State Fair, makes the following remarks on this subject:

"A very great error, we think, was made in having the address delivered in the Hall of Exhibition. It is impossible to keep an audience of such magnitude still. All do not come to hear speaking; they come to see the fair. They pay their money to see the exhibition; and it is not possible to keep such an audience quiet. Far better to have speaking in another place. Then, all who wish to hear can go; and those who wish to see can enjoy what they pay for."

**PRIDE** is a wild beast, which requires costly food—the happiness of its keeper and all around him.

### ROUGH DOCTORS.

While on this subject, may I be allowed to advert to the sad, harsh manner in which some medical men address their patients, children especially. They are too apt to speak to the invalids roughly—too often frightening them. Children are laid hold of in any thing but a gentle manner; their pulses are felt as if by force; their mouths forcibly opened for the purpose of examining the tongue, till the child is so alarmed, that it is almost impossible to judge of the real state of the case, owing to the excitement and crying. Now, surely, this is very wrong. Instead of having, with much difficulty, to coax the little one to go to the doctor's, or to allow him to see it at home, it is only right for the medical man to employ all his soothing powers to induce the child to place confidence in him; or, at any rate, he should, by his gentle manner, try to abate fear. It has been, and is at the present day, lamentably common for physicians and surgeons to adopt what is called "the Abernethy manner." Never was there a worse or more injudicious plan. I am not, for a moment, wishing to throw the least slight on so deservedly great and so skilful a surgeon as the late Mr. Abernethy; but I wish to condemn, and that most strongly, the rough system adopted by so many practitioners, as if rough, coarse behavior or manners constituted ability.—*My Note-Book; or the Sayings and Doings of a London Physician.*

*For the New England Farmer.*

### UNDERDRAINING—THE RESULT.

**MR. EDITOR:**—In the fall of 1858, I underdrained about two acres of cold, stony upland, at a cost of about \$30 per acre. A part of the drains were made of stone, which were plenty upon the ground, and a part of drain tile manufactured in our town. The crop of 1858 consisted of two small loads of brakes, with a little grass, and would hardly pay for cutting and taxes. I do not mention interest, as land that pays nothing is worth nothing.

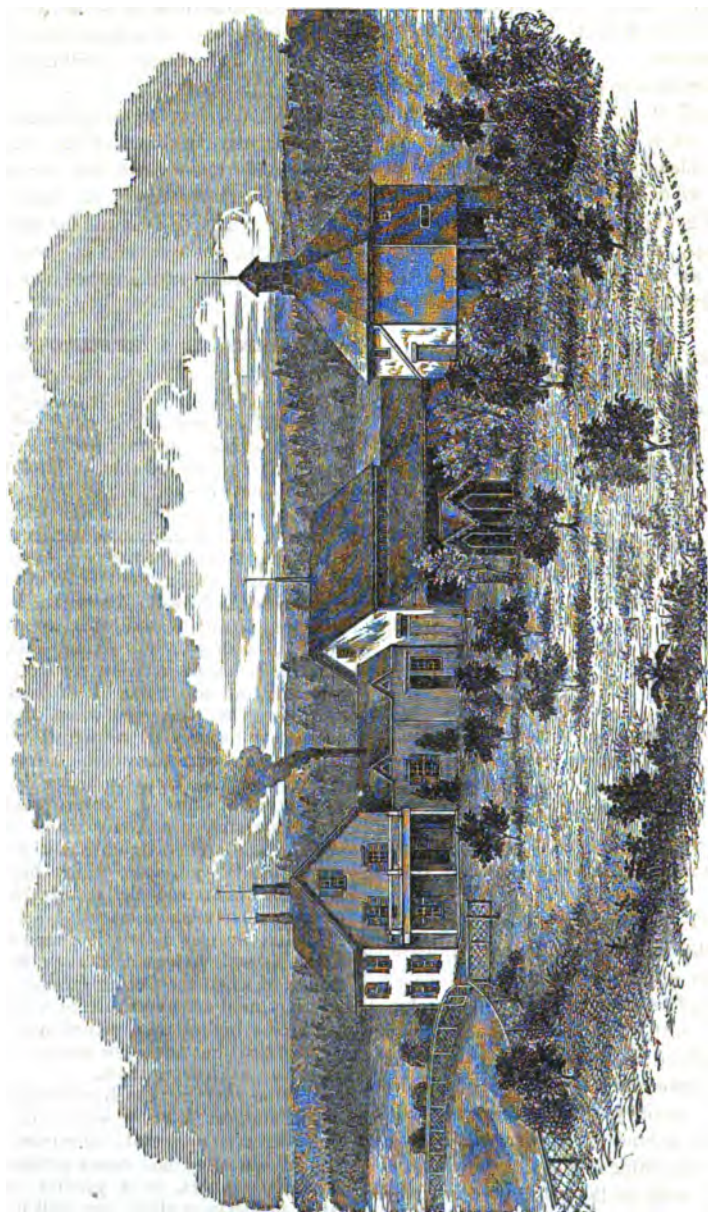
This spring, I broke it, manured lightly, and planted to potatoes, corn and beans. The crops did well, and at harvest were worth, in our market, about \$100, which paid the \$60 invested for draining, and \$40 for labor. The land is now worth, at least, \$50 per acre. I close by saying that my experience in farming does not coincide with that of J. T. P.'s.

J. R. W.

*Springfield, Vt., Dec. 12, 1859.*

**REMARKS.**—This short story will probably lead to the draining of scores of acres.

**ARTESIAN WELLS.**—Many of these wells have been made in California, to procure water for irrigation. By an article in the *California Farmer*, it appears that these wells are charged with producing very serious injury by causing the drying up of mountain streams and other bodies of water. The editor says, after mentioning by name quite a number of streams, ponds and lakes that have disappeared, "there are scores of mountain streams and lagoons that in the last few years have dried up, and with them the loss of herbage and the pasturage of tens of thousands of stock."



Residence of O. Chamberlain, Esq., Foxcroft, Me.

### A PLEASANT AND CONVENIENT HOME-STEAD.

There are few things that more truly indicate the degree of civilization and refinement that a people have attained than the style and arrangement of the buildings in which they live. These stand as memorials of the age, and mark its character as distinctly as does its literature, or any department of the arts.

When we see a house constructed in true architectural taste, all its parts harmoniously combining with each other, and the grounds about it so laid out as to blend with and heighten the effect of the whole, we expect to find within its doors a family of intelligent persons, with cultivated minds in most things, possessing attractive manners and adorning the society in which they move, as their house and lands adorn the natural world about them.

The tendency of this condition of things has an important influence upon the state of the mind, other things being equal. It soothes it when agitated—tranquillizes grief—furnishes pleasant objects for contemplation in sickness or sorrow, and fills the mind with a class of delightful associations that give it color and tone through life.

Is it not important, then, that when we build, it should be done in accordance with true rules, and so as to avail ourselves of all the advantages of location, style, health, convenience of arrangement, and to secure such an aspect about us as shall always suggest pleasant and kindly emotions?

It is not always more costly to get these things, than it is to forego them. It may be even cheaper. The man who *knows how* to construct a building upon true rules, will do it with less material than he who guesses at it, and at the same time give you a house furnishing the conveniences you require.

Another person might have expended \$500 more upon the buildings which are illustrated above, without obtaining their accommodations. It is best, therefore, for every one, before building, to advise with others in regard to location, arrangement of the interior, construction, and laying out of the grounds; and no house should be erected in the country without regard to *laying out the grounds* around it. A mere cabin, remote from all other buildings, with its bit of lawn in front, a little rude trellis-work here and there, with its creeping plants over the door, or their blossoms looking in at the windows and exhaling their fragrance there, is a thousand times more attractive than many a costly and presuming mansion. And this is attainable by all who build in the country.

The engraving which we present to-day represents the farm buildings of CALVIN CHAMBER-

LAIN, Esq., of Foxcroft, Maine, and it illustrates far better than we can by words, the idea which we should be glad to impress upon the mind of the reader.

Mere shelter is *not* all we want; a cultivated mind will never be contented with that alone—it yearns for something to *please*, as well as protect, and even in poverty and privation, will surround itself with such objects as will excite pleasant and healthful thoughts.

We intended to say something of the arrangement of these buildings, of the octagon barn, and the grounds about them, but our preface has exhausted all the space we can spare, and we must leave the reader to examine for himself, and postpone giving another train of thought, which this cut had excited, until another opportunity.

### TO MANAGE A REFRACTORY HORSE.

MR. EDITOR:—In the *Farmer* of the 15th inst. appeared an item, copied from the *Cotton Planter*, at which I was not a little surprised. Knowing the uniform humane proclivities of that journal, (the *Farmer*,) I wondered that it should seem to give countenance to such a barbarous experiment, as tying a cord—a plow-line was suggested—to the nether jaw of a balky or contrary horse or mule, and going forward of the poor brute with the other end, and pulling till it would come forward with its load. Now such a spectacle as that might, perhaps, be witnessed with approval, where all labor is coerced; but shame should and would mantle the cheek of *your* readers, most of them, certainly, at the thought of such a cruel operation. The time was when, among us, it was customary to whip all refractory brutes into submission, and many a valuable horse has been rendered worthless by such barbarity. But, thanks to the intelligence of the age, such practices, in New England, are being done away with, and more gentle and reasonable means substituted for correcting the follies to which brutes, as well as men, are liable, especially through the influence of early mismanagement.

It has been pretty well demonstrated, that a horse, as well as a man, is the creature of education, and when the *Cotton Planter* comes to learn this fact, and act upon this principle, it will have attained a higher civilization than that which admits of drawing horses or mules by the under jaw, to extort work from them.

Having said thus much on the article alluded to, let me suggest a better way to overcome the notion—for it is only that—of refractory beasts. The law of kindness has never yet failed to produce a salutary effect, in a greater or less degree, when properly applied; nor will it, in its application to a balky horse. It may require an immense patience and considerable time, with many efforts, to make a thoroughly contrary horse lift upon his collar, at a heavy load, in all places, but nevertheless, it may be done, and perhaps somewhat after this wise: Put him into the hands of some man fit to manage a horse, and who can control his temper under any circumstances, and with him let the horse become thoroughly acquainted,



(brutes, as well as men, make acquaintances,) after which, let him be used by such master only, hitching him to such loads as he can easily draw; allow him any time he may require to get ready to start, without much urging or any whipping, or loud talk. Smooth out his foretop and mane, caress his head and neck, and blow gently on his nostrils, and talk soothingly to him, and ere long his countenance and nerves will be seen to relax, and his eye to assume a mild and subdued look, when the driver may take him by the bit and ask him to go forward, and he will do it; or if he still refuses, allow him more time, and continue the above process till success comes, as it surely will come, without fail. Afterward, when the present load is drawn without reluctance, add more and more, and continue the same process, and eventually you may have as tame a horse as you can ask. Try it.

And are not such means more congenial to a mind of sensibility than that prescribed in the article referred to? Cruelty to animals, is always attended with pecuniary loss, and a brutalizing and debasing effect upon him who inflicts it. Better that the ox be sent to the shambles, and the horse sold to the jockey at any price, than that a man's sensibilities be blunted, his temper excited and his better nature outraged, in attempts to subdue them.

E. I.

*Springfield, Vt., 1860.*

#### BARN CELLARS.

This subject was recently discussed by the Farmers' Club of West Cornwall, Ct. The *Home-stead* reports that—

"All the club were agreed upon the value of such a place for depositing manure, where it may be composted and ferment, even during extreme weather.

It was the universal opinion of all who had tried it, that hay kept perfectly well in a deep bay, going below the surface, if it was well drained so that water would not rise; it should be well cured, and then it will preserve its color and fragrance better than upon open mows or scaffolds.

There was a division of opinion upon the point whether horses and cattle did as well, kept in underground apartments. The truth appears to be, that with proper light, ventilation, and cleanliness, there is no better stabling; but if the animals wallow in filth, or a reeking dung-heap occupies half the stable, and ventilation is only secured by doors sometimes open and producing currents of air, the natural consequences will be coughs and colds, and other diseases resulting from impure air and sudden changes of temperature."

**DR. LORING'S ADDRESS.**—We received, some time since, a copy of the "Address of Dr. George B. Loring, before the Barnstable Agricultural Society, Oct. 6th, 1859," printed in the *Salem Advocate*. The topic discussed by Mr. Loring is Agricultural Education—Elevated Labor. His arguments are based not on the mere expediency of desirableness of such education, but upon its imperative necessity for the maintenance of our

social and civil organizations. "That equality of citizenship which makes us a free people," says he, "requires this elevated condition of labor, without which we should be free no longer." We hope to see this address in a more convenient and, to our poor eyes, more readable form.

*For the New England Farmer.*

#### THE WEATHER OF THE AUTUMN MONTHS, 1859.

The first half of *September* was very dry, less than half an inch of rain falling during the first sixteen days; and the springs and streams, there being a scanty supply of rain during the latter part of August, became unusually low. Yet, strong indications of rain were not wanting, for several times storms lingered and threatened heavily for several days, but finally deposited only a trifling amount of moisture. A heavy, cold, north-east rain storm, however, set in at daylight on the 17th, and during the twelve hours of its continuance, deposited 1.94 inches of water on a level. A heavy, very cold north-east storm also prevailed during the 21st, 22d and 23d, in which two inches of water fell; and though there was but little rain during the remainder of the month, there was the usual supply of water for the month—4.24 inches.

The month, with the exception of a very few days, was remarkably cool throughout, and during the first sixteen days, the sunrise temperature was more frequently below 45° than above that point. Light frosts occurred on the 7th, 8th, and 9th, and severe frosts on the 15th and 16th. No frosts occurred during the remainder of the month, and generally the last half of the month was somewhat warmer than the first half. There were three very warm days about the 12th, but on the whole corn matured slowly; but very little had been cut previous to the 10th, and only a fair commencement had been made when the heavy frosts occurred on the 15th and 16th, greatly injuring the fodder, and almost spoiling the crop on late pieces. Generally the corn had not become sufficiently ripened to prevent serious damage; yet, at husking time the farmers found a larger proportion of sound corn than they had anticipated. On the 18th, from a point in this vicinity, nearly one hundred acres of corn could be seen, of which but a very small per cent. had been cut; the remainder was standing, dead and whitened from the effects of the frosts of the 15th and 16th. A large part of the corn, hereabouts, was in the milk at the time of the frosts; but little was glazed, and only here and there a piece matured enough to harvest.

The mean temperature of the month was 57.15°; of the first seventeen days, 56.44°; of the last thirteen, 58.69°, the last part of the month being two and a quarter degrees warmer than the first part. The mean temperature of September, 1859, varied but little from that of September, 1858, but while the whole month was very cool the present year, in 1858 the fore part of the month was extremely warm—no frosts occurring till the 23d; and the remainder of the month was remarkably cold, ice forming several times, but on the whole, very favorable to vegetation, and there was no loss from frosts.

The highest temperature in September was 75°,



on the 12th; the lowest was 34°, on the 15th and 16th. The extremes of September, 1858, were 82° and 28°. The warmest day was the 11th, having a mean temperature of 70.33°; the coldest was the 14th, with a mean temperature of 47°, when the weather was severely cold, with a heavy gale of north-west wind, rain squalls at 9 A. M., and snow squalls occurred in some of the towns of Western Massachusetts.

There were a few fine days during the first part of October, but generally the month was cold, quite cloudy, and dry, and unpleasant winds prevailed during the greater part of the time. North-west wind was very predominant, forming a characteristic of the month, there being fifteen days of wind from that quarter, generally strong, and often a heavy gale. The north-west wind was uninterrupted during the last seven days of the month, and in the last thirteen days there were eleven of north-west wind. Dark, heavy cumulo-se clouds generally attended, presenting a gloomy, November aspect; and on the whole the month was quite November-like, being much rougher than October usually is, and far from what October is expected to be.

The scarcity of rain was a marked feature in the weather, only two inches of rain falling in the whole month, and only eighteen one-hundredths of an inch fell after the 8th, or during the last twenty-three days. More or less rain, however, fell on six days, the greatest fall at one time being one inch and forty-four one-hundredths, on the 8th. There was heavy thunder and sharp lightning during the afternoon and evening of the 8th, and occurring in the midst of a long, cold, north-east rain storm, with the thermometer at 45° to 42°, was quite a novelty. It was the only thunder storm of the month.

The mean temperature of October was 45.63°, being 3.66° colder than October, 1858, and 3.1° colder than October 1857. The warmest day was the 4th, with a mean temperature of 63.33°; the coldest was the 26th, having a mean temperature of 31.83°. The highest temperature of the month was 75°, at three, P. M., of the 4th; the lowest was 23°, at sunrise on the 26th. There were flying snow-flakes on the 31st.

The first ten days of November were quite fine and warm, even Indian summer-like, but on the 12th a heavy storm set in, commencing with snow and sleet during the morning of the 12th, but the temperature rising, and the wind becoming strong from the south-west, the air was warm and humid, with mist, till the morning of the 13th, when powerful rain set in, with thunder and lightning occasionally. The rain continued through the day, with sleet again in the evening, the wind having changed to north-west at one P. M., and between noon and sunset the temperature fell from 62° to 35°. During the storm, 1.13 inches of rain fell, the first that had fallen for twenty days, or since the 22d of October; and during the thirty-three days between the 8th of October and the 12th of November, less than two-tenths of an inch of water fell. In consequence of this long continued drought, and from a scarcity of rain during several months previous, the streams and springs had become lower than at any time previous during the year, the Connecticut standing within a few inches of low water mark; and mills and factories were incommenced by the lowness of the streams.

Many fine days occurred during the remainder of the month; and generally the weather was quite mild, even rather warmer than usual, and the whole month was much more agreeable than the month of October. On the 22d, there was a storm of rain, preceded by an inch of snow; and during the storm, eighty-eight one-hundredths of an inch of rain fell. The ground was also white with snow on the morning of the 26th, but the storm having changed to rain, it soon disappeared. Not more than two inches of snow fell, in this part of the Connecticut Valley, in the whole month, but some of the hill towns of western Hampden and Hampshire counties continued white with snow from the 22d till the end of the month. The whole amount of water that fell during the month, was two and three-fourths inches.

The mean temperature of November, was 41.3°, being only 4.33° colder than October, and 8.35° warmer than November, 1858. The warmest day was the 18th, the mean temperature of the day being 47.17°; the coldest day was the 25th, having a mean temperature of 30.33°, being but 1.5° warmer than the coldest day of October. The highest temperature was 66°, at 2d, P. M., on the 5th; and the lowest temperature was 23°, on the 21st, being the same as the minimum temperature of October.

In short, the season as a whole was exceedingly unpleasant, though the fine weather of November somewhat redeemed its general character. The unseasonably cold weather of the first half of September came near accomplishing what had been often threatened in the summer months—the destruction of crops by frost; and the corn crop did not escape material injury; and the rough, windy weather of the following months rendered the gathering of the fall products very disagreeable.

The mean temperature of the three autumn months was 48.03°, and taken together, were 0.57° warmer than the autumn months of 1858. The mean temperature of the same at sunrise was 40.68°; at noon, 53.25°; at sunset, 49.75°; and the mean maximum for the same time was 55.42°. (Ordinarily the maximum, or highest temperature of the day, occurs at not far from three, P. M.) The mean temperature of September, at sunrise, was 48.43°; at noon, 63.67°; at sunset, 57.87°; while the mean maximum of the month was 64.93°. Of October, the mean temperature was, at sunrise, 38.35°; at noon, 51.09°; and at sunset, 47.61°; mean maximum, 53.39°. Of November, at sunrise, 35.27°; at noon, 45.1°, and at sunset, 42.77°; mean maximum, 47.83°.

There was more or less rain on twenty-three days, the whole amount equalling 6.19 inches, or two-tenths of an inch less than fell in the month of June. Rain fell on eleven days in September, on six in October, and on the same number of days in November. The first snow-flakes were observed here on the 31st of October, and the ground was barely whitened with snow on the 12th, 22d and 26th of November.

During the three fall months, (ninety-one days,) there were twenty-two clear days, and sixteen cloudy, and of the remaining days clouds were rather predominant in twenty-three, and thirty were tolerably clear. In September there were seven clear days, four cloudy, eleven tolerably clear, and eight others in which the clouds predominated. In October, eight clear days, six

cloudy, seven much so, and ten tolerably clear. In November, seven clear days, six cloudy, nine tolerably clear, and eight in which clouds were very prevalent.

The wind was from the north-west thirty-six days, or forty per cent. of the time; from the south-west, twenty-five days; from the north-east, twelve; from the south, eight; from the north, two and a half; from the south-east, one and a half; and there were six days in which the air was calm, or without a regular current. Total number of days of wind from a northerly quarter, fifty and one-half; same from a southerly quarter, forty and one-half, distributed as follows: In September, 11 from the north-west, 6 from the north-east, 9 from the south-west, 1 from the south, and 3 of calm; in October, 15 from the north-west, 3 from the north-east, 1 from the north, 10 from the south-west, 1 from the south, and 1 of calm; in November, 10 from the north-west, 3 from the north-east, 1½ from the north, 6 from the south, 6 from the south-west, 1½ from south-east, and 2 of calm.

Among the miscellaneous phenomena, I observed eight haloes, five of which were solar and three lunar.

I also observed eleven auroras. Five occurred in September—on the 1st, 2d, 24th, 27th and 28th—the two first of which were very brilliant displays of polar light, and exceedingly interesting. Five exhibitions of the aurora borealis were also observed in October—on the 2d, 18th, 20th, 21st and 29th—mostly quite feeble, however, as was the one on the 14th of November, and attracted but little notice. In a period of a little more than two months, ending with October, there were fourteen or more auroras seen; an unusually large number to be visible in so short a space of time in this latitude. And doubtless many others occurred that were rendered invisible, either by clouds or bright moon-light. Such grand auroral displays as were witnessed on the nights of the 1st and 2d of September, and also on the 28th of August, are worthy of more than a passing notice. Their powerful electrical influence, as manifested in the working of the telegraph lines during these magnetic storms, has already been spoken of at length by the newspapers, and need not be commented on here. The whole sky was strongly illumined in every quarter during the last part of the night of the 1st, with crimson and various prismatic hues, auroral clouds appearing in various quarters, with splendid, ever-changing streamers, shooting up towards a point near the zenith. From the electrical disturbances in the working of the telegraph wires, it was evident that the same auroral storm continued during the forenoon of the following day, being rendered invisible by the shining of the sun, and probably continued through the day with varying degrees of intensity, becoming visible again on the evening of the 2d, as soon as the twilight would permit, and continued till a little past midnight. Though this display was less in intensity and vividness, and variety of colors, than that on the night preceding, it was still hardly less interesting. Soon after sunset, it appeared as a faint blaze of light a little above the northern horizon, increasing and fluctuating as the evening advanced, and before eight o'clock became an imposing spectacle. The dark segment was quite characteristic, bounded above by the bright, luminous arch, from

which proceeded the brilliant streamers. At eleven o'clock, I particularly noticed *flashes* of yellow light constantly darting upward from the arch near the horizon, chiefly from the north, north-east, and a point east by north-east, leaping and flickering like tongues of fire, towards a point a little south of the zenith. At times there were arches of light arranged like curtains, from which the streamers darted in rapid, constant flashes, or coruscations which seemed to be but a few yards above the tree-tops. Certainly I never saw auroral light apparently so near the earth.

A low temperature occurred generally during these displays of polar light, frosts occurring even in August and the first part of September; and according to the popular notion, that cold weather is indicated by auroras, a cold winter may well be anticipated.

The fall migration of the birds generally occurred from one to two weeks earlier than usual. The snow-birds came down from the north about the middle of October, in company with other northern sparrows. The blue birds and robins departed during the last days of the same month. Wild geese passed over on their southward journey about the 12th of November. On the 12th, I observed ten flocks in about three hours, passing in a breadth of two miles, in the aggregate there must have been 700 individuals—a remarkably large number to be seen here in so short a space of time.

ERRATA.—In my remarks upon the weather of the summer months, (p. 482 and 483 of monthly *Farmer*, vol. 11.) the types caused me to say that July, 1859, was 42° colder than July, 1858, instead of 4.2° as intended. Also that the summer of 1859 was 16° warmer than the summer of 1857, instead of 0.16°.

J. A. A.

Springfield, Dec. 2, 1859.

INFLUENCE OF AGRICULTURAL PAPERS.—The Rev. Mr. Choules, in an address delivered some years since, before the American Institute, said:

"He once undertook to tell, in passing through a town, what farmers took agricultural papers, from the appearance of their farms, and missed but once in thirteen times.

"I was lately in the company of a son of a bank president—a young man accomplished in his way—who inquired what neat cattle meant, and how many years it took wheat to come to maturity. I earnestly believe that agricultural papers, generally circulated in our cities, would be productive of the greatest benefit."

TEN THOUSAND DOLLARS MADE IN A YEAR FROM EIGHTEEN SWARMS OF BEES.—We have, from reliable authority, the following account of remarkable success (pecuniarily) in raising bees in this State. A gentleman in one of the valleys near the Bay, last year purchased eighteen hives of bees, for which he paid eighteen hundred dollars. From these eighteen hives he had one hundred and one swarms, and he has sold one hundred of the swarms for one hundred dollars each, thus realizing the snug sum of ten thousand dollars in one year. He still has on hand nineteen swarms, one more than he commenced with! So much for bees.—*California Farmer*.

**POWL MEADOW.**

On re-publishing from our paper an article on this grass, the editor of the *Wisconsin Farmer* asked for information of its growth in that State. From a communication in reply to this request we take the following statement, made by a gentleman who found a strange weed in his strawberry patch, which he preserved out of curiosity, and which a friend while eating some of the strawberries, recognized as the Fowl Meadow grass:

A few weeks afterwards, I took the handful of seed (all there was) and sowed it on the edge of my marsh where I had burned a few heaps of willow bushes in the spring, and put nothing on the ground. The next season I did not make hay until after harvest, and found this grass mostly all rotten, as it had grown too rank, and fell or lodged down. There was nothing done to the strawberry bed that year, and the few bunches left there were down and the seed wasted, as I thought. But in 1854 the strawberries had run out, and a fine patch of this grass was cut, and the seed saved; which was sown with some clover seed in the spring of 1855 on a small piece of ground with rye near the river, and about five feet above its level. In 1856 I had a very good crop of clover, and here and there a few spears of this grass. In 1857 the clover was badly killed out by the previous severe winter, and I did not cut it until quite ripe, and it being a very wet time, did not get much, nor very good hay. In 1858 I had as heavy a crop of hay as could be wished for, as the clover and grass had both shelled and seeded it perfectly in 1857. And this year, 1859,) I had a full crop of fowl meadow grass, the clover having been completely killed out last winter; there was about four tons (six loads) on two and one-eighth acres of land; this I have saved for seed, and shall sow all my marsh and lowland with it in the spring, as the fire has burned over most of my marsh lands, and they require seeding again.

The few little willow patches sown with it at first had spread all over the driest parts of the marsh, and made a very good mixture of marsh hay.

*For the New England Farmer.*

**SAW-DUST AS A FERTILIZER.**

To a notice rendered some weeks since, in your valued journal, Messrs. Editors, asking the worth of "Saw-Dust as a Fertilizer," I respond as far as able, through your columns. Since then, further inquiries have been made, to which I am unable to answer, until a coming year. But in looking over some books of "clippings" from newspapers (the gathering of which I commenced some twenty years ago, until they have swelled to many large folio volumes,) I find the following, which, if of any use, I shall amply be repaid for looking it up. Unfortunately, I do not find from what paper I took it, or of what date it was. But I copy it exactly as I find it. Let me hope if it does no good, like the stick in the old woman's porridge, "it will do no harm." In using "Saw-Dust as a Fertilizer," I presume it is not needed for me to say if used on dry soil, it must be well rotted or dampened. But I have found it to work best generally on soft or

moist ground. I give the extract herewith as referred to.

**"SAW-DUST FOR ORCHARDS.**

"A year last fall, I hauled a load of old rotten 'saw-dust,' and threw it around my young apple trees. My neighbor over the way is one of those characters who plods on, in the same old track that his father and grand-father did before him, believing that they knew all, and more too. My neighbor said, if I put saw-dust around my trees I should surely kill them! I told him I would risk it, 'any how.' I put fresh stable manure around one row, and saw-dust, around the next. Around another row I put leached ashes. And the remainder of the orchard I manured with rotten barn-yard manure, and in the spring spread it, and well planted the ground with corn and potatoes. The result was, many trees grew very luxuriantly, but the trees where the saw-dust was grew the best, the bark being smoother, and the trees had a healthier appearance. I will state, also, that that part of the orchard planted to potatoes grew greatly better than that part planted with corn. The soil was clay loam."

December 15, 1859.

OAK HILL.

*For the New England Farmer.*

**TAXES.**

MR. EDITOR:—As a new Legislature is soon to assemble, and as you will have the honor of a seat in that branch where farmers most do congregate, I wish to call your attention, and that of your readers, to the laws of Massachusetts for the assessment of taxes. Ever since the time of Cæsar Augustus, and I know not how long before, the decree has gone forth that all the world shall be taxed, and in this country, the correct principle of taxation is generally admitted to be in proportion to property. Ability to pay, however, is far from being in that ratio. For instance, Mr. A, with a family to support, is worth but \$1000, and is taxed \$7. Mr. B is worth \$2000, and is taxed \$14. Now it is plain to see that Mr. B, with an equally expensive family can pay \$14 much easier than Mr. A can pay \$7. Yet no one supposes that any plan can be adopted which would make it equally easy for every man to pay. The principle of taxing in proportion to property, I think, is right and practical; but you will see that our laws need a radical alteration to make them conform to this rule.

To illustrate, suppose two young farmers wish to purchase homes for themselves and families. They go to the same neighborhood, and buy farms of equal value, say \$3000. One has the cash, probably left him by his father, to pay for his, and \$1000 left for stock and tools. The other, by six years of economy and hard labor, has saved \$1000. He pays this, gives his note for the balance, \$2000, and secures by a mortgage on the farm, and buys his stock and tools on credit. Now he is worth but one-fourth as much as the first; but by our laws they must be taxed equally. Again, suppose two merchants or mechanics commence business in the same place, and require an equal amount of capital to carry on their business, perhaps \$3000; one has cash to pay for his whole stock, and begin clear of debt; the other has nothing but a character for honesty and integrity, and he

gets trusted for the whole, and our laws tax them alike! Now these are not solitary cases, but they abound in every village and neighborhood in the Commonwealth. Is this right? Is it just? Does not the law bear oppressively on those least able to sustain the burden? I think you will answer, yes.

But this is not all. Our laws are not only unjust and oppressive, but their tendency is to discourage young men from having a home of their own, and especially from engaging in agricultural pursuits. Farms and stock, cannot like cash and notes of hand, be concealed. The assessors will find them, and they cannot escape the tax, though they owe for the whole. The result is, of two evils, they choose the least; rent a house or farm, move from year to year, till furniture is spoiled, wife discouraged, habits of negligence acquired, local improvements disregarded, and the end is poverty and ruin!

Many more reasons might be added, but I will now merely suggest the remedy. And first, let the assessor be required to take a true and perfect invoice of all personal property, notes secured by mortgage excepted, deduct debts and tax the balance; or in other words, apply the same principle to all personal property, that is, by law, now applied to cash and notes of hand.

Secondly, let all taxes on mortgaged real estate be set to the mortgages in proportion to the notes thus secured.

Let this be done at the next session of the Legislature, and the young men of the Commonwealth will remember you with gratitude, and you will be welcome to your \$4 per day for all actual attendance.

Westboro', Dec. 29, 1859.

R. M.

## EXTRACTS AND REPLIES.

### MAKING WINTER BUTTER.

In reply to Mr. Leonard, of New Bedford, I would say:

Immediately after milking, strain your milk into tin pans, and put it into or on your cooking stove until the milk is quite scalding hot, then remove it to a shelf or cupboard adjoining your kitchen with a temperature of from 60° to 70°. Skim it within three days. You may keep the cream, if necessary, two weeks or more. To a quantity of cream sufficient for ten pounds of butter, put in the juice of two or three fair sized orange carrots. Then churn from ten to twenty minutes, with your cream at a temperature of 55° to 60°, and if you do not succeed in making good, sweet, yellow butter, worth 25 to 30 cents per pound, I will pay for your copy of the *New England Farmer* for the year 1860.

For many years I have made butter through the entire winter, of as rich fragrance and aroma as can well be made in June or September. Try it, brother Leonard.

JOSHUA T. EVERETT.

Everettville, Princeton, Mass., Dec. 28, 1859.

### WARTS ON SHEEP.

Will some one of your readers inform me what the cause is of sores on the sides of the mouth of my sheep? They look like clusters of warts. The sheep are otherwise in good condition.

East New Sharon. 1860.

A. R. HALL.

### WINTER BUTTER.

Friend Leonard inquires through the *Farmer* how he can be relieved from the wear of fourteen hours' churning? I will give him the benefit of my experience, as that is what we have a farmers' paper for, and inquiries, "Extracts and Replies," stand prominent in its good features.

Strain the milk and set it over a kettle of hot water until it skims freely, or is as hot as you can bear the finger in it; then set it in a pantry or cupboard near the kitchen where the temperature is not below 60° through the day, and does not go down to freezing in the night; let it remain forty-eight hours, then skim with as little milk as possible. Do not keep the cream more than from five to seven days, if you want good sweet butter. Be careful not to commence churning when your cream is too cold, as in that case it becomes frothy, and the butter-making is retarded. I have made good, firm, sweet butter up to the present week, with from fifteen to thirty minutes churning. I think very favorably of the plan of giving a few carrots daily to milch cows, as it improves both quantity and quality of the butter.

The thermometer this morning at 2 o'clock was at 21° below zero, and now, 2 P. M., it is 6° below.

Royalston, Vt., Dec. 28, 1859.

A. P. F.

### FOWLS FOR COLD WEATHER.

Will any of your correspondents inform me through the paper which breed of fowls stand cold weather best? I have kept the Spanish, which are good layers, but are not very hardy. I wish to get the hardiest kind, and at the same time get good layers.

P.

Woburn, Dec. 2, 1859.

### HOW TO FEED FOWLS.

When my chickens are quite young I give them Indian meal five times a day, and when old enough to lay, about a table spoonful of cayenne pepper with their meal once a week, for twelve hens. This, with plenty of lime and gravel, enables them to give near twenty dollars a year for their products.

A. R. H.

### RED-TOP.

I would inquire through your paper how much red-top seed I should sow per acre, and what ground is the best to sow it on? Also, if it does well mixed with other seed, and if so, what kind is best?

W. H.

REMARKS.—Red-top is one of the best grasses we have, and its seed is usually mingled with one or more other varieties in seeding our lands. The quantity usually employed per acre is one peck of herdsgrass, three or four pecks of red-top, and six to ten pounds of clover; the latter being sowed in April.

### PROFITS IN AGRICULTURE.

To learn whether there are profits in farming or not, the true way seems to me to be as follows: reckon the interest on the stock, tools and farm, and add to the labor; then get the value of the proceeds, and strike the difference, and you will see at once the true result.

Jericho Centre, 1860. HARRISON WEBSTER.

*For the New England Farmer.*

### NOTES FROM SANDY RIVER.

And here comes the *New England Farmer*—the very one that I have desired so long to make an acquaintance with; the friend, counsellor, and encourager of the sons of toil. The very one that I have seen so many gems of useful thought attributed to, by its co-laborers, in aid of agriculture. Yes, it has just come, and with it its December companion. O, that I could have the eleven volumes of your compend—the monthly! Come, some gentle zephyr, and waft them to my rural home, so that, while the Sandy, in its icy fetters, goes murmuring by, in hushed tones, I may

“From labor’s cares awhile forbear,”

and feast upon the full supply of milk and honey therein contained.

Some of your contributors, I am sorry to see, still hold a threatening wand against the robin-breast. A noble, sprightly, diligent bird is he. I would rather never taste a cherry, damson, or plum, however delicious they may be, than that he should forsake my home, so that I could not see him build his nest in some favorite tree, some cosy corner, upon some beam or board, and from thence, through his season, go forth, “from early morn till dewy eve,” so faithfully performing his allotted rounds. Speak for the robins; plead for the birds, so that their chorus songs may continue to be heard upon all the land in sweet, free, melodious strains.

**Frosts.**—The past season here has not been an exception to what your correspondents report it to have been in many other places, as far as regards frosts. May was an uncommonly favorable month for the farmers. Fodder was unusually scarce, but the early grass started up remarkably well set, and relieved not only the poor, but many of the well-to-live farmers, as well as being a timely supply to many starving beasts.

But the “frost story” commences with June, which gave killing ones on the 6th, 10th and 12th. July 5th, white frost. August 30th, one which killed corn in some places. September 7th, 8th, 9th and 16th, still severer.

**Snow.**—We are having snow storms in bountiful profusion. Already (in December) there have accumulated three feet of snow, notwithstanding the rains, upon the high lands. The first snow for the season, on Mounts Saddleback and Abram, was seen on the morning of September 14th; and followed by a severe snow squall down the river on the same day between 11, A. M., and 2, P. M.

I interrogated every old resident that came within my circle, to know when, if ever before, they had seen the like, and their united response was,

“Only this, and nothing more,  
Never before!”

So then this is worthy of record as being unusually early, at least, and to be put with the minor incidents that go to make up an uncommon chain of events for 1859, long to be remembered as such by many.

The drought is broken, then, after the sun’s scorching rays are withdrawn; and that which seemed to be so desirable to have in “vernal showers,” is now descending in fleecy snows of velvety softness, covering the fields before they are frozen to any amount.

Yet the New England pleasures, amid these frequent snows, are nearly as numerous as ever, although the boys and girls have been deprived of some of their accustomed skating parties, because the lakes and rivers refused to hide their faces beneath their icy veils, to give them a play-ground to enjoy their health-giving and innocent sports upon.

Come, then, *New England Farmer*, with thy well-filled budget of gems—

“Diffused, yet terse, poetical though plain,”

to the beautiful Sandy River Valley, and receive a thrice welcome.

O. W. TRUE.

*Elm Tree Farm, Avon, Me.*

*For the New England Farmer.*

### PLANT SUGAR ORCHARDS.

MR. EDITOR:—I have been thinking for a number of years, and with a good deal of interest, on the importance of the sugar maple to the inhabitants of Vermont, and to the northern States in general. Sugar will always be deemed a necessity, and if we have the means of producing a good article with little labor, it would be the height of folly to let the chance slip, through indolence or miscalculation. Twenty and thirty years ago, I regretted, very much, to see the maple trees of the primitive forests disappearing before the axe for fuel and other purposes, but I have since learned that they may more than be replaced, and that the day of maple sugar has but just begun, if the farmers will only have it so.

Sugar orchards of second growth trees are far better, and more profitable, than old ones. From one to three acres of land is all the farmer now needs to supply his family with this necessary and agreeable article. Some rocky or stony side-hill, (not too steep,) having an aspect to the east or south, well planted with sugar maples, will, in ten years, be worth more for the above indicated purposes, than any other three acres on his farm; besides, it may at the same time produce a fair crop of feed.

The outfit for fitting up good sugar works of lasting materials, cannot be very expensive, and when once done, and well taken care of, will be an excellent investment. If our fathers could find it profitable to manufacture sugar, when they were compelled to dig out troughs from pine logs, and boil in five-pail kettles against logs in the woods, we, certainly, with our present appliances and improvements, have no excuse for neglecting the means so obviously within our reach. A good share of neatness, and a little skill, will enable us to produce as good an article as can be obtained from the cane or the bee. These considerations, and many more that might be adduced, should stimulate us to make the most of our own resources, and I much regret that I have not the power to arouse the attention of the land owners of this northern section of country to the great importance of this subject. But I will do what I can, and hope that some abler pen will take up the subject, and pursue it in a manner commensurate with its importance.

A. PIXLEY.

*Enosburgh Falls, Vt., Dec. 13, 1859.*

REMARKS.—Capital suggestions. We have no doubt they will be acted upon.

## FEEDING COWS.



CORRESPONDENT inquires how much hay a good-sized milch cow should eat per day, fed on hay alone? How much, without roots, and how much when not giving milk? A common guide is, we believe, that animals require about three per cent. of their live weight. But no fixed rules, we think, are reliable. Two cows standing

side by side, of nearly equal weight, and fed precisely alike, will vary materially in the amount of milk, which they will yield; or in fattening, one will gain a half or a third more than the other, on precisely the same kind and quality of food.

Horses should be confined to limited quantities, as, if supplied with the fodder, they will eat more than is healthful or economical. Milch cows may be allowed all the hay they will eat with a good appetite, and to that may be added with economy a little grain, or occasional messes of oats. Of course, a cow that gives no milk, will not require so much feed as one that has that constant draught upon her.

The whole matter of feeding stock requires experience, and then the exercise of a sound judgment, in order to economize the fodder, and get a profit from the animals fed.

A sufficient number of reliable experiments have not yet been instituted, to show those feeding stock whether it is best to feed hay, grain and roots in a raw state, or to incur the expense of cooking it. From the experiments instituted, and which have come to our knowledge, we are inclined to the belief that an economical arrangement for steaming, soaking, or partially cooking food for all farm stock, will be found, in the end, the most profitable course to take with it.

Mr. C. H. WATERS, of Groton, Mass., a gentleman who has an inherent love for agricultural pursuits, and who is willing to expend a portion of his means to promote the interests of the farmer, recently informed us that he had been cooking hay for a herd of twelve cows, and had continued his experiments through several consecutive months. His first trial was by steaming the hay, supposing that by subjecting it to a

pressure of some ten or fifteen pounds of steam, he should so affect the fibres of the hay as to make it soft and palatable, and commence, for the animal that is to consume the food, the first process of digestion. To his surprise, however, he found the steam would not accomplish this desired result; the hay came out about as hard and wiry as before it was immersed, and without receiving any evident advantage from the process.

His next experiment was to heat water and pour it upon the hay, covering the box, and allowing the hay to soak in the water twelve hours, and feeding only twice a day. Under this process his cattle gained flesh, and the milch cows gave an increased quantity of milk, upon an amount of hay a little less than two per cent. of their live weight.

Mr. C. M. DAVIS, a milkman, in Cincinnati, recently communicated some facts to the New Orleans *Price Current* which are applicable here. He says,

"I commenced the use of your steam-boiler on the 7th inst., at which time my ten cows gave 60½ quarts. My daily feed was ten buckets of middlings, and corn and cob meal about equal parts.

Cows gave in the commencement.....	60½	quarts.
On the 8th they gave.....	66	"
9th (reduced feed two buckets).....	69½	"
10th they gave.....	71	"
11th " ".....	73	"
12th " ".....	73½	"
13th " ".....	76	"
14th " ".....	77½	"

My milk has improved in quality, and my cows in appearance. I shall make further experiments in feeding the corn and cob meal separate, as also with clear cob meal, and report again in about ten days."

From this it appears that the gain in seven days was 17 quarts, being 28 per cent. gain in milk, with a saving of 20 per cent. in food.

ROLLING SNOW ON WHEAT FIELDS.—A correspondent of the *Toronto Globe* (C. W.) advances the opinion that rolling the snow on the autumn wheat in winter would be an effective means of preventing winter-kill, by rendering the snow less liable to melt on every sudden thaw that occurs. He says the practice is extensively followed in Sweden. A good deal of discussion is taking place in the columns of that paper, on this subject, from which we gather that it yet requires the test of actual experiment to decide whether any benefit is to be derived from the operation or not.

MAKING CHEESE IN WINTER.—A correspondent of the *Rural New-Yorker* regards the present practice of making it in the summer both absurd and expensive. The winter, he says, is by far the best time to make cheese, because the milk is richer, more easily managed, and there is no danger from flies, or souring of vessels. There is also more time, and milk can be produced cheaper, and of a better quality than in summer.

*For the New England Farmer.*

### PRAIRIE BREAKING IN KANSAS.

*Letter from a Lady—A Professional Man Turns Plowman—New Models his Plow—His Success as a Prairie Breaker—Distilleries and Public Schools—Hard Plowing—Buffalo and Wild Horses.*

Kansas is now taking a resting spell, preparatory to asserting her right as a Free State, and claiming her privilege to enter into the circle of the States, the coming session of Congress. Emigration is slow, business is stagnant just now, and my husband, a professional man, finding too much time to spare, and having imbibed quite a fancy for farming, through the influence of your paper, has concluded to gratify it. But he took hold of the most laborious part, as his first attempt—that of prairie-breaking, it being the most profitable just now. Of course, as this is a country which promises but little business to “rock-lifters” and “stump-pullers,” he “pitched in” with the confidence and energy of an old farmer, sure of success. So he purchased three yokes of oxen and a fifteen inch plow of western manufacture. I think it was manufactured in St. Joseph, Mo., the place which supports two distilleries, that turn out each one hundred hogheads of whiskey daily, but cannot support one public school, and has a population of 10,000 inhabitants!

Of course, a description of a breaking up plow will be interesting, and perhaps amusing to many of your readers, especially to the steam-plow advocates.

He made two standards, perforated with holes, an inch apart, and mortised them into the beam of the plow. One standard was placed six inches, perhaps, back of the clevis, and the other eight inches from the end of the beam, between the plow handles. Then he made two wheels, one ten inches and the other twenty inches in diameter; said wheels were cut from logs of that size, and were six inches thick. He connected the wheels by an axletree. He then mortised two upright standards into the axletree, leaving a space between the uprights to introduce the end of the plow beam which rests upon the axletree. Making a lever of sufficient strength, he connected one end of it, by a wooden pin, with the standard next to the clevis. Mortising a hole through the other end of the lever, he then introduced the standard between the plow handles through this mortise, and behold! the self-controlling, non-holding plow was ready for action! The reason why one wheel is made larger than the other is, the large wheel runs in the furrow and the small wheel upon the sod, thus making the plow run even.

Now the theory of this simple affair is, that it makes the plowing of uniform depth, and also dispenses with the laborious task of holding the plow, needing only a man to guide the oxen. In commencing to plow, at the beginning of the furrow, my husband raises the lever which puts the point of the plow in the ground. The end of the lever is then made fast by a wooden pin, to the standard which is between the plow-handles. The furrows were half a mile long, and the plow thus adjusted would run the whole length upon the wheels, without guidance, or making any “balks,” the plowman’s plague. At the end of the furrow he takes out the pin and lowers the lever, which throws the point of the plow out of the ground. Then it runs upon the wheels, and needs no tip-

ping. He then drives to the other side of the land, raises the lever again, and goes ahead.

Breaking this way is certainly easier, as every one will acknowledge, who has held the plow all day. The labor of breaking the green sward in New England is nothing in comparison to breaking the virgin soil of the western prairies, which has been rendered hard and tough by the unobstructed rays of the sun and centuries of trampling of buffaloes, horses, and other wild animals.

When the ground is moist, a good team will break two acres per day. Experience has proved to us, that the lighter the sod is broken, the sooner it decays. The ground depth is two inches. The price for breaking prairie is from three dollars and a half to five dollars per acre, according to the quality of the soil, and its freedom from grubs and roots. So a good heavy team will net the owner a fair profit, and the cattle need no other sustenance but the prairie grass, upon which they will grow sleek and fat, in spite of their continual hard work.

Of course, there are many discomforts with all this profitable labor. When the strong wind arises—and Kansas is proverbial for its high breezes—the dust rises so thickly as to nearly choke the plowman, and compelling him to wear “goggles.” Then, perhaps, “Bright” or “Broad” will break a bow or snap a chain, and one must go two, three, and sometimes ten miles, to get it repaired, which is rather provoking to the time-saving, money-loving farmer. Then, in this country, the cabins are, as yet, “few and far between,” and the prairie-breaker must camp out in his wagon, cook his own food, and be altogether his own servant. An occasional “shake” is pleasant, if one does not shake his clothes off, as it relieves the monotony of his time, and teaches him how to appreciate the philosophy of suffering. He must rise before the sun, and search through the tall prairie grass—most cattle wear bells—for his oxen. Rubber boots and rubber leggings are indispensable, if one does not wish to go the whole day with wet garments; for in the morning, the grass is as wet as if a shower had passed over it.

But there is one good thing in breaking up prairie, for if one does not line his pockets, he certainly is richer in experience, and knows how to appreciate the domestic and social qualities of home. Another good thing; my husband has worn out all his old clothes, of which every one in Kansas has a surplus. If any of your readers have any old clothes to spare, please send them to Kansas, for good clothes are not worn here.

Yours, from the prairies,

SUSIE V.

Sumner, K. T., Oct., 1899.

### SHEEP AND DOGS.

Mr. Powers, of the *Wisconsin Farmer*, after publishing the statement that, in only eleven of the nearly one hundred counties of the State of Ohio, the assessors return over 7000 sheep killed and nearly 8000 injured, in the year 1898, by dogs, at a cost to the owners of over \$25,000, says:

“Is it not a shame and disgrace that the United States, with all its various and unequalled facilities for wool-growing, should, through its love of dogs and hydrophobia, buy some twenty to thirty mil-



lions of pounds of wool from foreign countries, because its farmers dare not and cannot safely keep sheep?

We have sold our last sheep this fall, and a fine flock at that, and for a low price, because we dare not keep them, through fear of dogs. That many others are abandoning the business within the range of our acquaintance for the same reason we know. How long shall this condition of things last?"

*For the New England Farmer.*

### COST AND PROFIT IN FARMING.

MR. EDITOR:—In a late *Farmer* you call attention to an article published in the same paper with regard to the cost and profit, or rather no profit, of farm productions. With your permission, I propose to review some of the statements of that communication, believing that a more hopeful view of the subject can truthfully be presented. By his figures an acre of corn has cost \$10 more than the crop has brought in market. I propose to trace out the probable future crops of that acre of land, assuming the figures all correct, though I think some of them might be changed, and not stopping to argue that more manure would have paid, or that the crop might have found a better home market. I will lay the land down to grass with barley, entering it in debt.

One acre of barley.....	Dr.	
To interest on the debt one year.....		\$10.00
To plowing, one man, a well trained yoke of oxen and plow one day.....		.60
To boy, horse, harrow and roller one day.....		2.25
To seed barley, 1½ bushels.....		1.50
To man sowing barley and grass seed, ½ day.....		1.50
To one man mowing, raking and getting in barley, to the amount of one day.....		.25
To a boy one day, and yoke of oxen ½ day.....		1.25
To threshing and winnowing.....		1.00
To all other expenses, consisting of taxes, interest on capital, labor, &c.....		4.00
Crop.....		\$26.35
By 18 bushels barley.....	Cr.	\$18.00
By straw.....		\$5.00
		\$23.00
The debt is now reduced to.....		\$3.35

ONE ACRE IN GRASS.	Dr.	
To previous cultivation.....		\$3.35
To interest on the debt.....		.19
To labor amounting to one man two days, and one yoke of oxen ½ day, mowing, raking, and getting in hay.....		3.25
To other expenses, consisting of storage, fences, taxes, &c.....		6.00
To herds grass, red-top and clover seed.....		4.00

		\$16.79
By 1½ tons of hay, which finds a home market.....	Cr.	\$18.00
Net profit.....		1.21

SECOND YEAR IN GRASS.	Dr.	
To three days' labor in consequence of dull weather, cutting and curing hay.....		\$4.25
To one yoke of oxen, cart and wheels, ½ day.....		.50
To all other incidental expenses.....		6.00

		\$10.75
By 1½ tons of hay.....	Cr.	\$18.00
By amount brought forward from last year.....		1.21
By interest.....		.07

		\$19.28
Net profit.....		\$8.53

Now we have got the balance on the right side of the ledger, and propose to expend \$15 in top-

dressing, when we may safely calculate on three more crops as good as the last two have been. No farmer should expect to be paid by the first crop, after breaking up land exhausted by repeated cropping, but should lay it down to grass in an improved condition. Mr. Pinkham seems to have run into this error, though I find much to approve of in his communication. I have for a long time, been aware that some farm productions are often sold below cost, but I have looked upon corn and stock-raising as among the paying operations of the farm, when judiciously managed.

In farming, as in everything else, many persons form too hasty opinions, and are too easily discouraged. Intelligent and persistent cultivation on a farm of no more than average facilities, is sure to succeed. There are many men engaged in farming who have no taste for, and no real interest in the occupation.

When a man finds out the business best suited to his capacity, his fortune is more than half made, and his happiness very much promoted. I would then say to every young man, search diligently to find out your capacity; and if your mind leads you into agriculture, take hold of it with a will that is an earnest of success; and let no trifles nor apparent failures discourage you. Cultivate the mind as well as the ground, bringing all the information you possess, or can gain, to bear upon your chosen occupation, and before many years pass you will be proud of your choice.

If time and the editor permit, I will review Mr. Pinkham's figures on calf-raising in a future article.

H. KIMBALL.

*Kennebunk, Me., Nov. 19, 1859.*

REMARKS.—We cannot decline your kind proposition, as no question connected with agriculture is of more vital importance than this. The oft-repeated tale, that farming is unprofitable, and unfashionable, crushes the occupation more than all things else.

We observe that you have allowed the farmer one dollar per day for his labor upon his farm; is there not, also, a profit on that labor, as well as to any other person who works by the day? If so, there is an increase of profit of even more than you have presented. There certainly is a profit in the labor of any person who earns more than a frugal subsistence costs.

VITALITY OF EGGS DESTROYED ON RAILROADS.—Eggs carried by railroad cannot be depended upon for hatching—the continued jar shaking the life out of them. The *N. Y. Tribune* relates the experience of a man, who said that he had found on trial that eggs could not be carried twenty-five miles safely unless special precautions were adopted. Packed carefully in a small basket, and this held constantly in the hand, they will ride without jar and without injury to their vitality.

SELF-ACTING FARM WELL.—Persons desirous of learning more about *Ayer's Patent Self-Acting Farm Well*, may do so on application to Mr. ALVAN WARD, of Ashburnham, Mass.

## WINTER SUNSET.

By graceful scrolls of ice-like, pearly blue,  
And streaks of violet-red, like new-born flame,  
Damp heaps of gathered stubble leaping through,  
Pale gold in lengthening bars, and many a hue,  
Shifting too suddenly for eye to mark,  
On leaden-colored wave-clouds, thick and dark,  
As nearer still the hastening sunset drew,  
I knew when dreary, wild November came.

With musing heart I watched the beautiful sight,  
While the coal brightened, while the young fire blazed,  
Till all had vanished, twilight sunk to night,  
And star by star hung out its lonely light  
O'er fields of dark to stretch a monaroh ray,  
Like beacon-light across the mariner's way;  
But ere the evening glory took its flight,  
Some peaceful thoughts breathed on me as I gazed.

Dread not of earthly change the wintry night;  
Be faith in God thy bosom's constant guest;  
Go not self-panopied to stormy fight,  
Nor stay encastled in presumptuous night;  
Thy God's pavilion stretches o'er thee still;  
In coming darkness he will work his will;  
With lifted eye behold the clouds now bright  
With hues that harbinger the pilgrim's rest.

Warm-housed, with curtains down and fresh-trimmed light,  
Or hurrying home with mantle-ahelided eyes,  
Shivering and chattering, we miss the sight  
Of beauty in the wintry sky, more bright  
Than in the spring or summer-time we see;  
And as a vision came these thoughts to me  
In the fair eve of that November night,  
When looking on that sheen of numberless dyes.

*Monthly Religious Magazine for January.*

## PROPORTIONS OF THE HUMAN FIGURE.

The proportions of the human figure are strictly mathematical. The whole figure is six times the length of the foot. Whether the form be slender or plump, this rule holds good. Any deviation from it is a departure from the highest beauty of proportion. The Greeks make all their statues according to this rule. The face, from the highest point of the forehead where the hair begins, to the end of the chin, is one-tenth of the whole stature. The hand, from the wrist to the end of the middle finger, is the same. The chest is a fourth, and from the nipples to the top of the head is the same. From the top of the chest to the highest point of the forehead is a seventh. If the length of the face, from the roots of the hair to the chin, be divided into three equal parts, the first division determines the point where the eyebrows meet, and the second, the place of the nostrils. The navel is the central point of the human body, and if a man should lie on his back with his arms extended, the periphery of the circle which might be described around him, with the navel for its centre, would touch the extremities of his hands and feet. The height from the feet to the top of the head, is the same as the distance from the extremities of the other when the arms are extended. These are the general measures of the species.

**LARGE EARS OF CORN.**—A correspondent of the *Ohio Farmer* says: "I shelled several ears, and they produced as follows: One 1060 grains; another 1100; another 1100; and another 1164. I have heard old farmers say that a paper, wrapped

around an ear of corn, the ear then taken out, will not contain the shelled corn of that ear. I tried it with two ears, and the paper would not hold the corn; one of those ears had 936 grains on it, of which 535 filled a pint cup. At this rate, it would take 34,540 grains to make a bushel."

*For the New England Farmer.*

## STUDIES OF THE SOIL.—No. 1.

BY WILLIAM EDSON.

The two sciences, as such, geology and chemistry, from which must arise in a more or less direct manner all theory in relation to the formation and treatment of soils, are but little understood among practical men, and are commonly treated by them as subjects entirely aloof from their duties; yet every intelligent working man, and especially the farmer, is both a chemist and a geologist, and depends, in a degree, for his success, upon his practical knowledge of these sciences.

Aside from the merely business view of this knowledge, there is another in which its value is greatly enhanced,—I refer to its effect upon the mind of the recipient. We all live in two worlds, the world of mind and the world of matter. It is the lot of most to labor in one or both of these. Necessity requires us to labor in one, the world of matter, which is the labor of the hands. Manliness and Christianity urge us to labor in the other, which is the work of the mind. Life cannot be truly enjoyed independent of either health of mind or health of body, and as health of body depends directly upon bodily exercise, so health of mind depends directly upon mental exercise.

All agree that, in the duties of the intelligent farmer, the labors of the hand and brain are most harmoniously blended, and that it is for him to enjoy that rarest of all blessings, a "sound mind in a sound body."

The farmer, as he follows the plow, may not be wholly engrossed in mere manual labor—every clod that the plow turns up, will give him a lesson in geology, and every rootlet a lesson in botany; let him be ever so indifferent, nature will insist upon his learning some one of her many secrets; she will give him something to treasure up for his future use or pleasure. By this almost involuntary study has the farmer's storehouse of knowledge been filled, by it the rude chance farming of the ancients has advanced to the present state of intelligence and certainty.

Until quite recently, the term "scientific farming" was not used, and we now hear it oftener as a term of reproach than otherwise; but it cannot be denied that science, even as put forth by the most impractical, has done the agriculturist great good, and is destined to do still more. Perhaps one of its greatest benefits, up to the present time, is that arising from the strong feeling of emulation among farmers of the old school, to prove by their crops and profits that they can excel the theorist; urged by this feeling, they have eagerly sought for improvements, and applied them with a skill which only the good old-fashioned farmer is capable of. It has also caused discussions, and excited a thirst for experiment and inquiry which cannot result otherwise than in good for all. These are only some of the incidental benefits arising from the application of science to agricul-

ture; the true value of this department of scientific knowledge cannot be estimated, since much more is now known than has yet been generally and skilfully applied; and, again, there is much of agricultural chemistry which is yet in so vague and uncertain a state as to be almost, if not quite worthless, as far as practical farming is concerned.

If it were true, as some have the hardihood to assert, that no practical good, as far as crops and profits are concerned, arises from scientific research in this department, yet its benefits upon the mind of the farmer would be incalculable, as it raises his thoughts to the contemplation of the laws of nature, giving him one of the most stable of all pleasures, and in health of mind, the crown of "green old age."

Assuming that every farmer is both a practical chemist and geologist, since the most common duties of the farm require a knowledge of these sciences, I wish to call attention to the chemistry and geology of the surface stratification.

For the sake of simplicity in the treatment of the subject, I will divide the varieties of soil into three classes, namely, 1, mechanical; 2, chemical; 3, vegetable. This general classification may strike the geological reader as novel and perhaps inadequate, but for the ordinary discussions of practical men, I think it will be found not inappropriate, if we bear in mind that the terms used are not intended to indicate by what agency the materials of which the soils are composed were brought into their present positions, but simply to express the present condition of the soil itself. Thus, by mechanical, I would designate all earths which bear evidence of not having undergone any great chemical or vegetable change since being deposited in their present position; that is, the mixture of the different materials of which they are composed is simply a mechanical one; by chemical, all that indicate by their strata and composition that some important change in their qualities has taken place since their deposition; and by the last term, all that are principally made up of vegetable matter.

The first of these formations, or classes of formations, to which I give the name mechanical, may be found in nearly all positions, though perhaps oftener in low than high grounds. Under this head will be classed moraines, sand-hills and bars, ancient river-beds, and all such surface strata as bear evidence of having been deposited by some violent mechanical action.

Upon examination of the strata of this class, we find them sometimes composed of regular layers of material, which is not always coarsely divided, but yet is never thoroughly, chemically united; others have no regular layers, but seem to be composed of confused masses of gravel, sand and clay, which are not intimately united, nor in any manner definitely divided; here is a bed or layer of gravel—it extends a few feet, and abruptly terminates in a bed of clay, or perhaps gradually growing thinner and thinner, disappears between layers of clay and sand; again, we find strata of almost pure sand. I cannot enter into a lengthy explanation of the causes of these various phenomena, but will briefly state them; thus, when the layers are comparatively regular, they are supposed to have been deposited from running water, either fresh or salt. The irregular stratification, which in fact covers a large portion of the eastern

part of Massachusetts, is undoubtedly owing to glacial action, as it occurs in ice-bearing currents, while the occurrence of sand-hills is generally assigned to the action of the wind.

The currents from which were deposited a large portion of the surface formations of the eastern part of New England, are supposed to be analogous to the oceanic currents of the present, and probably arose from the same causes, namely, evaporation, difference of temperature of the polar and equatorial regions, and the earth's rotary motion.

The currents of the ocean are, without doubt, constant, considered as a whole; in other words, there always exists a series of currents and counter currents, those from the poles moving south-westerly, and those from the equator north-easterly, of the northern hemisphere; for the southern hemisphere, the reverse is true. The existence of these currents is thus accounted for. The velocity of the surface of the earth at the equator is about one thousand miles per hour, towards the east; while at 45° north or south latitude, it is but seven hundred and fifty miles per hour; therefore, water at the equator has a velocity of one thousand miles per hour, and water at 45° but seven hundred and fifty miles per hour; now, if, from any cause, a body of water moves from the equator towards the north, it will still retain its easterly motion of one thousand miles per hour, lessened only by friction; hence, when it arrives at 45°, where the surface motion of the earth is but seven hundred and fifty miles per hour, it will have an easterly motion exceeding in rapidity that of the earth's surface by two hundred and fifty miles per hour, if it were not reduced by friction; as it is, the excess is great; this excess of velocity being combined with the northerly direction gives the currents their north-easterly course. The same reasoning applied to currents flowing from the north pole to the equator, will show why all such have a south-westerly direction. The gulf stream is an example of the first, and the currents which bring down polar ice are examples of the last. Balloonists take advantage of this same principle, and found upon it their theories of easterly aerial currents, in which they think they may be able to cross the Atlantic. The effects of these currents are *abrasion* and *drift*.

The action of a current of water sweeping over the surface is, first, to remove all loose earth from high points and deposit it in valleys; but its effect does not end here, for no sooner is the loose earth removed, than the solid rock is attacked, and in its turn carried down to the valleys. This mechanical action upon the rocks, together with the chemical decomposition that is constantly taking place, is called *detrition*; the resulting deposit is called *drift*.

Currents of air produce the same results as currents of water, and though the action of the wind is much less important, it is still so great as to be well worth careful consideration. The aqueous currents cease their action before the land becomes inhabited, but the aerial ones are always at work.

The effect of abrasion upon the surface is perfectly obvious; it can leave nothing but a barren and hard strata wherever it takes place. Though drift is but the counterpart of abrasion, its action is much more complicated and difficult to

understand. Its effects are commonly just the opposite, for wherever drift accumulates, there we may be nearly sure of finding good land. In New England, wherever a soil is evidently composed of drift from an oceanic current, it is easy to state its chemical composition, as originally deposited; we have only to examine the exposed rocks lying in a direction north-easterly from it; their nature must of necessity determine the nature of the soil in question. It should be remembered, that, in the examination of soils, this is to be considered but as a general truth, and that there are so many modifying causes that this knowledge alone will not enable one to determine with any degree of accuracy the present chemical nature of the soil.

One of the most important considerations for the New England agriculturists, and one in which almost every farmer is directly interested, is that of river and lake deposits; these consist of not only large amounts of finely granulated mineral, but also vast quantities of vegetable matter. The extreme richness of such deposits must be acknowledged by every one who considers the following facts: first, the minerals of which they are composed are finely and intimately mixed; second, the finely divided minerals are not only carbonized, but are brought in connection with particles of carbon and decaying vegetable matter or humus; and lastly, the entire mass is more or less impregnated with ammonia. Although it is impossible to conceive of a richer soil than this, yet it is probable that there is no class so universally neglected and despised. In scientific classification, soils formed of these deposits are called fluvialile and lacustrine; the farmer turns them off with the not very flattering title of swamp or mud hole.

As an example of the magnitude of these deposits, the following may be interesting. The area of the delta of the Mississippi is 13,600 square miles; the average depth of deposit is 528 feet, and it has been estimated that the river annually deposits thirty-seven hundred millions of cubic feet! This at first thought seems large; but even at this rate, the venerable father of rivers must have diligently labored for sixty-seven thousand years.

In a future number the chemical formation and composition of soils will be considered.

*Boston, Jan. 4, 1866.*

**CLUB FOOTING.**—A writer for the *Michigan Farmer*, thinks that the club-footing of cabbages results from a deficiency of moisture in the soil to supply the natural exhalation of its foliage, which he says Dr. Hales found to be so great as to equal daily nearly one-half its weight. He remarks that bulbous or tuberous-rooted plants will exist in a soil so deficient in moisture as to destroy all fibrous rooted vegetables. When, therefore, the moisture at the root of a cabbage plant does not equal the exhalation of its foliage, it endeavors to supply the deficiency by forming a kind of spurious bulbous root.

**A BATTALION OF CHILDREN.**—In the town of Scandiano, situate near the *Regium Lepidi* of Cicero, a battalion of four hundred boys has been

organized under the direction of General Garibaldi, who having noticed, in the course of his warlike experience, that boys of thirteen and fifteen years of age had proved useful in daring military operations, made up his mind in the late campaign to enrol a battalion of such youthful troops. An intelligent young officer undertook the task of forming the legion, which at first did not number more than one hundred and fifty. Austrian persecution and patriotism soon increased their ranks, so that the battalion has now completed its numerical strength. An eye witness of their manœuvring was recently astonished to see their steadiness and precision. Their commanding officer, Count John Arrivabene, is a young nobleman of three-and-twenty.

#### THE USE OF TOBACCO.

The Dean of Carlisle, in a recent lecture on tobacco, at Carlisle, England, gave the following statistics:

In 1856, thirty-three millions of pounds of tobacco were consumed here at an expense of eight millions of money; five million two hundred and twenty thousand pounds of which went in duty to government, to say nothing of vast quantities smuggled into the country. There is a steady increase upon this consumption far exceeding the contemporaneous increase of population. In 1821, the average was 11.70 ounces per head per annum; in 1851, it had risen to 16.39; and in 1853 to 19 ounces, or at least at the rate of one-fourth increase in ten years. We hear of 20,000 hogsheads of tobacco in the bonding-houses in London at one time. There are twelve city brokers in London expressly devoted to tobacco sales; ninety manufacturers; 1569 tobacco shops in London; 82 clay pipe makers; 7380 workmen engaged in the different branches of the business; and no less than 250,048 tobacco shops in the United Kingdom. And if we turn to the Continent, the consumption and expenditure assume proportions perfectly gigantic.

In France, much more is consumed in proportion to the population than in England. The Emperor clears 100,000,000 francs annually by the government monopoly. At St. Omer, 11,000 tons of clay are used in making 45,000,000 tobacco pipes. In the city of Hamburg, 40,000 cigars are consumed daily, although the population is not much over 150,000; 10,000 persons, many of them women and children, are engaged in their manufacture. One hundred and fifty million cigars are supplied annually; a printing press is entirely occupied in printing labels for the boxes of cigars, &c., and the business represents 4,000,000 francs. In Denmark, the annual consumption reaches the enormous average of seventy ounces per head of the whole population; and in Belgium even more—to seventy-three ounces, or four pounds and three-fifths of a pound per head. In America the average is vastly higher.

It is calculated that the entire world of smokers, snuffers and chewers consume 2,000,000 tons of tobacco annually, or 4,480,000,000 pounds weight—as much in tonnage as the corn consumed by ten millions of Englishmen, and actually at a cost sufficient to pay for all the bread-corn eaten in Great Britain. Five millions and a half of acres

are occupied in its growth, chiefly cultivated by slave labor, the product of which, at two pence per pound, would yield thirty-seven millions of pounds sterling. The time would fail to tell of the vast amount of smoking in Turkey and Persia; in India all classes and both sexes indulge in this practice; the Siamese both chew and smoke. In Burmah all ages practice it—children of three years old and of both sexes. China equally contributes to the general mania; and the advocates of the habit boast that about one-fourth of the human race are their clients, or that there certainly are 100,000,000 smokers!

*For the New England Farmer.*

#### THINGS I LOVE TO SEE AND READ.

I love to read the *Farmer*; its extended circulation fulfils its given name, *New England*. It finds its way into every nook and corner of intelligent New England, the industrious and enterprising empire of this continent. I love to read agricultural papers, whose correspondents are live, practical men, untrammelled by professors' theories, infinitesimal manure men, who will carry manure in one coat pocket, sufficient for an acre, and the crop in the other, if their theories are carried out, which they seldom or never attempt. It is all theory, and no practice; practice gives the lie to theory.

I love to see young men's experience in type, even if it should controvert the theories of professors of old Harvard. Facts give the lie to theories. I love to see facts from any young man, without inquiring how much his beard has grown; facts from his experience will weigh more than ten thousand theories.

I love to see the honest name of a writer affixed to his communication; his recorded name; it looks honest; it has weight; it is an endorsement. Who will take a note of hand with a fictitious name? None but flats, such as would give credence to anonymous writings in agricultural papers, which have a great bearing on the weal or woe of farmers and gardeners. They read such papers for information and instruction in their calling, which is the basis of all callings known to man, to multiply and increase the products of the earth.

Who would put confidence in a theoretic writer on hydraulics, whose theories contradicted all facts of the science? Who would employ a chimney sweep to paint his portrait? Then why should agriculturists employ ignoramuses to enlighten them? It is like the blind leading the blind; both will fall into the ditch.

I love to see a paper, which is intended for the advancement of any particular calling, contain practical matter and facts, tending directly to correct errors, and to point in the right direction to advancement; such I believe the *N. E. Farmer* to be in an eminent degree, because it seems to be wedded to facts instead of fancies; facts gathered from those who are supported by their farms, not those who support their farms by money procured in some other way. Such a paper never tires a subscriber; in it he meets his fellow-craftsman in good fellowship; face to face he reasons with him; he is of the brotherhood; equal meeting equal; no collegian intruding his classical lore

upon his unappreciating tastes; no kid-gloved farmer comes up to his ideal; it is the practical, toiling farmer that gains his attention; the one that goes straight to the point, in a straightforward manner, in plain, unsophisticated language. *South Danvers, 1859. J. S. NEEDHAM.*

*For the New England Farmer.*

#### THE LAWTON BLACKBERRY.

MR. EDITOR:—I have just read an article in your paper, by WM. F. BASSETT, upon the blackberry. I think he must be mistaken in the variety which he calls the Lawton—if not, I must be in mine. I purchased my vines, indirectly, of Drew & French, of New York, and I positively know that they produce very sweet, and in every way most delicious fruit, as many individuals who tasted it will testify. Mr. B. says they are so acid as to be unfit for the dessert, even when allowed to remain on the bushes until perfectly ripe. When are they perfectly ripe?

There is a rule that I never knew to fail in case of the Lawton, viz.: Let them remain on the bushes until they are very sweet. Don't be in too much haste to pluck them. After they are perfectly black it will require from 7 to 10 days to ripen them.

Since writing the above I have showed Mr. B.'s article to one of our most reliable horticulturists, who stepped in to my office, and he unhesitatingly says, "Why, he don't know anything about the Lawton Blackberry; 'tis a very sweet and fine fruit." He also says it is not "full hardy," but what he should call "half hardy."

Had I not seen him, I should have called it hardy, for the reason that mine have not winter-killed, but last summer produced good fruit at the extreme end of the vines. I would say to all who like good fruit, don't hesitate, from what been said against the Lawton blackberry, to set out good genuine vines, in a deep, light, rich soil, with a northern exposure—say the north side of a high fence or building—and you will have abundance of sweet fruit from about August 1st to September 15th, and probably still later. When my first fruit commenced to turn, blossoms were to be seen on the same bushes, and their fruit ripened subsequent to the latter date, but was not so good as that which ripened in warm weather. Several other persons in our city with whom I am acquainted, have been as fortunate in raising them as I have, in quality, but perhaps hardly in quantity from the same number of vines. I counted thirteen fine berries in one cluster, and a great many more had from nine to twelve. G. W. H.

*New Bedford, January, 1860.*

REMARKS.—We are happy to learn that our correspondent secures an abundance of good fruit. All we can say about the Lawton is this: we procured vines from Mr. Lawton himself, and therefore cannot doubt but they were true. We cultivated them with care, and produced an astonishing amount of the superb looking black-berries, but not one among them all that any person on the farm could eat, on account of their acidity. Even in the early part of October of one year, some of

the vines were loaded with the finest looking fruit, but nobody could eat it.

We hope our friends will regard the advice of "G. W. H.," to set out blackberry vines, but suggest to them to procure the plants of him or his neighbors, and then they will be likely to get fruit that is eatable. It is quite likely that the "Dorchester" went to New Bedford, instead of the Lawton.

*For the New England Farmer.*

### THE BEST TIME FOR PRUNING AND TRANSPLANTING APPLE TREES.

#### PROFITABLE FARMING.

MR. EDITOR:—As I have recently endeavored to show that the cause of the potato rot is yet undecided, I shall now point out several other questions, of great importance, which seem to be left in the same predicament. To avoid taking up too much of your room at any one time, I shall, on the present occasion, point out only the three following:

1. Which is the best or most proper time for pruning apple trees?

Each season of the year, spring, summer, autumn and winter, has had its advocates. Those who practice pruning in the spring, contend that as the sap is then in full flow, and brisk motion, the wounds heal quicker than at any other season; whereas, the fact is, or seems to be, that the sap escapes so rapidly and profusely from the wounds as frequently to prevent their healing at all. In spring pruning, as soon as warm weather comes on, and the sap presses into, and distends the sap vessels, it bursts out of the recent wounds, and runs down, and blackens and poisons the bark and wood, and frequently causes the tree to droop and die.

With better reason, the same argument is urged by those in favor of summer pruning, because at that season, the leaves have attained their full size, and are in full health and vigor, and are then elaborating an abundance of sap for immediate use. At that season, a fresh wound will commence healing at once, and a new bark will be rapidly formed to cover the wound; for it is only when the leaves are in a condition to perform their proper office, that the new growth and healing can take place.

By others, the autumn is said to be the best time for pruning, because, they say, it is proper to wait until the leaves and sap have done their work in the branches, before proceeding to prune them; and then not till the leaves have fallen, and the top has become somewhat dormant, leaving the wounds to the drying and hardening influences of the sun and wind, till they become hard, sound and well-seasoned. It is said not to be material whether the wounds heal over the first, second or third year, as they will always remain in a dry, but healthy state.

The same argument has been urged by those in favor of winter pruning, and with this additional reason, that in winter we have more leisure to do the work carefully and well. But enough of this; as the question is yet undecided, and I see no prospect of deciding it, I close, by saying

that I am opposed to too much pruning, at any season of the year.

2. Is the spring or autumn the best time for transplanting fruit trees?

Here is another question that is undecided. The great majority of farmers continue to transplant their trees in the spring, without stopping to inquire what may be said for or against the practice. In transplanting trees at any time, many of the roots and little rootlets are necessarily wounded, either broken and torn off, or cut off. Those who transplant their trees in the spring, cut off the supply of nutriment from the roots, at the very moment, when it is most needed by the trees.

Others prefer to transplant their trees in the autumn, because they have more leisure for the operation, the ground is in better condition, and the trees are comparatively in a more quiescent or dormant state. They think, also, that the wounded and mangled roots will heal better, and be prepared to send out fresh ones even before the frost is out of the ground; and besides, that the winter and spring rains will settle the earth around the roots, so that the trees will be well established before warm weather overtakes them. In my opinion, however, more depends upon the manner in which the work is done, than upon the particular season.

3. Is farming profitable?

I had supposed that this question had been decided a long time ago, by the great numbers who, in every age of the world, have embarked in it, as a profitable business, producing thrift and abundance, and also, by the numbers who are still engaged in it, as a means of enriching themselves, and of securing a comfortable subsistence for their families, and who have never yet discovered, or till very lately, that farming is unprofitable. But it seems that the world have been grossly deceived upon this subject, for it has been recently discovered, by a gentleman of our day, and of this Commonwealth, too, that farming is unprofitable! This he has shown by a statement of figures in black and white, in the columns of the *New England Farmer*, so that there can be no mistake about the matter! He has shown, to the satisfaction of some, that every farming operation is money out of pocket; that every field of corn costs more than it is worth; that every quart of milk costs more than it will bring in the market; and that the more productions of every kind a farmer raises the poorer he becomes! These are not his exact words, but they contain the sum and substance of his doctrine. Now, if these statements be true, how comes it to pass that farmers, generally, are so thrifty, so forehanded, so rich and independent? How came they by so large a share of this world's goods? They could not have acquired so much by merely cheating one another. They must have pursued the business of farming with an industry, skill and perseverance, which made it profitable to them. But, without mooted the question further, I shall admit it to be undecided. More anon. JOHN GOLDSBURY.

*Warwick, Jan., 1860.*

ESSEX NORTH HORTICULTURAL SOCIETY.—At a recent meeting of this Society the following officers were elected, viz:—For President, E. G.

KELLEY, M. D., re-elected. Vice Presidents, A. W. MILTIMORE, WILLIAM ASHBY. Corresponding and Recording Secretary, A. HORTON. Treasurer, W. W. CALDWELL, Jr. Committees were also appointed on fruits, flowers and vegetables.

The Treasurer reports that 129 new members have been added; that \$226.79 have been paid for incidental expenses and premiums, and that \$354.36 have been added to the cash funds of the Society during the past year.

*For the New England Farmer.*

#### WHAT ONE COW DID.

MR. EDITOR:—Your correspondent from Chelmsford, I am glad to see, is waking quite an interest in relation to the profits of farming. If he is right, you, sir, are in bad business, and, with your kind, benevolent feelings, will undoubtedly take the back track, and devote the influence of the *Farmer* to dissuading the young men of New England from engaging in agricultural pursuits. I hope, however, you will not be hasty, but continue to inculcate the same old doctrines for a few numbers more, at least. Mr. P., in your last number, supposes a case, and sets all your readers to ciphering it out. Now, I will state a simple fact, (my neighbors might state many better ones, if they would,) and ask your correspondent to tell how soon a young man, with ten such cows as the one I am going to speak of, would become bankrupt.

My cow calved Jan. 1. Sold the calf at five days old, to raise, for.....	\$3.00
January and February, she gave 12 qts. milk per day, and in March 11 qts. per day—977 qts., which I sold at 3½ cts. per qt.....	34.19
April, May and June, she gave 9 qts. per day, July 8, August 7, September 6—1456 qts., sold at 2½ cts. per qt.....	36.40
October, 4 qts. per day—124 qts., sold at 3½ cts.....	4.34
Total.....	\$77.93

November and December she was dry. I kept the cow seven months on a mixture of English hay, oat or barley straw, meadow hay, corn stover and rowen, cut and seasoned with salt, and shorts or meal. Of this she would eat twenty-five pounds per day, (including corn butts left.)

6325 lbs., at \$10 per ton.....	\$63.25
5 qts. shorts, 5 cts., or same value in meal, per day.....	10.65
One peck roots per day, 5 cents.....	10.65
The other five months she had good pasture and corn fodder, at 8 cts. per day.....	12.16

Cost of keeping for one year.....\$96.08

Now I have sold all my fodder at the full market price, have a good pile of manure for future use, a cow increased in value, and \$17.85 left. No dairy ought to average less than this.

If it were not trespassing too much, I should like to say a word on the economy of raising stock and grain, but at present, I will only remark that I know, from experience, that a young man can buy a farm on credit, support a large family, pay interest and taxes, and after a while, principal, too; and I will say, that, in looking back for many years, I cannot call to mind the first young farmer, with an ordinary share of intelligence and energy, with habits of industry, temperance and economy, who sacredly regards the Sabbath, pays

his minister's tax and the printer, but has, with the help of a good wife, succeeded in acquiring a pleasant home. Indeed, I believe such men never fail.

*Westboro', Dec. 20, 1859.*

#### SILVER.

Half a century ago, the annual production of silver, so much as comes to the use of Atlantic nations, was estimated at \$39,500,000; with no material deviation in the average in the meantime, the annual yield is now \$44,000,000. Silver is flowing to the East with great rapidity. M. Chevalier, in his recent work, states the following facts: From the books of an English navigation company, it appears that in 1856 this company carried direct from England to Asia, \$60,000,000, and in 1857, \$84,000,000 in silver. In 1851, the quantity shipped through the same channel was only \$8,500,000. There was sent to the East from the Mediterranean ports in 1856, \$18,000,000. It goes eastward through many other channels, but the two items given above for 1857 amount to more than double the annual supply that comes to our part of the world. The Chinese and all the barbarous nations of Asia demand silver. In the British Empire of India, silver alone is the legal tender; and a new market is now opened for the same metal in Japan. How extensive a market this last will prove to be, cannot yet be known; but the Japanese will aid in draining silver from Europe, to the extent of whatever gold they now possess.—*American Merchant.*

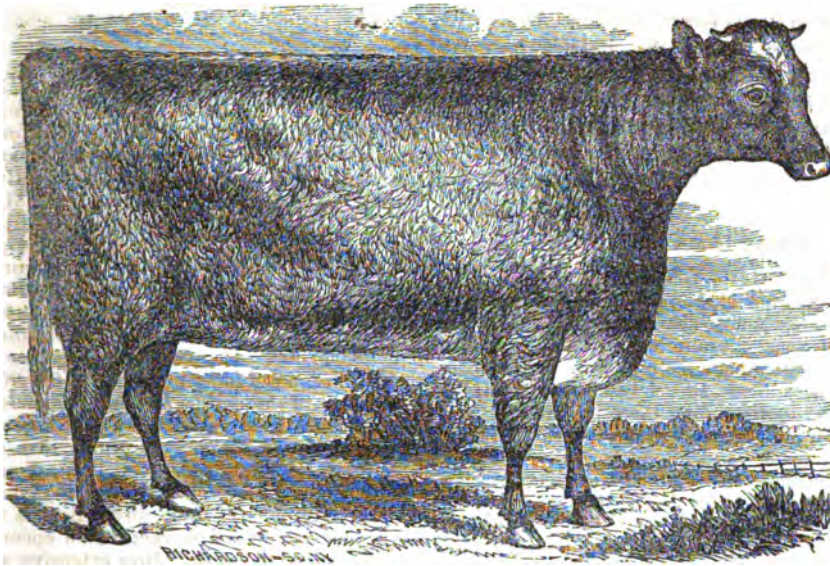
#### GOOD ADVICE.

Let our young farmers throw their novels to the dogs, and fill their own heads with facts. Let them get up village lyceums, debating societies, agricultural meetings, anything adapted to the locality, and encourage the latent talent in the place, to show itself. There is no reason why a farmer should not be a well informed man, and be able to speak or write in such a manner as to demand attention. He has, or might have more leisure time than men in other professions, and instead of sitting down and complaining that the government is administered for the benefit of the idle at the expense of the worker, and that he does not get his share of the offices, let him fit himself for the performance of legislative duties. An intelligent farmer, who is able to draw his own conclusions, and form his own opinions, and give his reasons for them, in a clear, concise and logical manner, will have more influence in any legislature ever assembled in the state, than any lawyer, because it is generally believed to be the peculiar art of a lawyer, to "make the worse appear the better cause."—*N. H. Journal of Agriculture.*

A JUDICIOUS INVESTMENT.—A correspondent says: "I have recently bought a farm, and the very first dollar I have paid out on that account, is the one I now enclose for your *Monthly New England Farmer.*"

We predict that this man will not often be heard grumbling, and that he will make money by farming.





#### DURHAM HEIFER---JUBILEE OF ALBION.

Bred by R. A. Alexander, Woodford Co., Kentucky.....The property of Hon. John Wentworth, Illinois.

This breed of animals is so well understood by most persons who take an interest in cattle, that a lengthened description does not seem necessary at this time. We give the portrait of this heifer as a truthful illustration of one of the class, and to show how beautiful in form and expression, an animal may be made through the agencies of intelligence and care. The Durham cattle are docile, good feeders and milkers, lay on flesh rapidly, and those who breed them say they do this at a low comparative cost of feeding.

Mr. Wentworth, the owner of Jubilee, went from the State of New Hampshire many years ago a poor boy, and established himself as a printer and publisher, and growing up with the young city of Chicago, became rich, was sent to Congress, and has had many other trusts confided to him by the people. But he never forgot his early interest and love for agricultural products, and we found him several years since, during a brief call we made upon him, more ready to show us what he was doing and thinking about in agriculture, than to talk about political matters,—so that the call was an agreeable one. He devotes a considerable portion of his time and money to promote the interests of agriculture, and we cannot doubt, will find more gratification in such pursuits than in all the honors or emoluments of office.

CONDENSED CIDER.—The Messrs. Borden, of Winstead, Ct., who have been so successful in solidifying milk, have also accomplished the solidification of sweet cider. By the vacuum process, the cider, taken sweet from the press, is reduced five gallons to one, without boiling, and a beautiful jelly is the result; which will keep for any length of time without mould, souring, or fermentation of any kind. By the addition of water, it is immediately restored to its former condition, and becomes cider again. All that is lost by the process are the impurities that may exist in the primary apple juice, and the green, sickish taste. The restored cider is much like a drink of prepared tamarinds, but is more delicate and palatable. The condensed article is a beautiful wine colored jelly, and is excellent for the table, either with meats or as a dessert. When reduced and bottled with a proper delay, the article so “extended,” will ferment and become superior sparkling champagne cider.—*Boston Traveller*.

THE HOMESTEAD.—This paper has been changed from the quarto to octavo form, and is much more convenient in its present shape. The January number is illustrated, and is printed on large and fair type. It has an able and earnest corps of Editors, gentlemen whose hearts as well as heads are enlisted in the calling which they have chosen. It has no crotchets, is modest but firm in its opinions, and is doing a noble work.

### LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The first formal meeting for the session of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening. A large number were present, and much interest was manifested in the proceedings.

The meeting was called to order by Col. DAVID HEARD, of Wayland, at 7 o'clock, and the committee appointed at the informal meeting the week previous announced the following list of officers, and reported the annexed rules.

*President*.—His Excellency, N. P. BANKS.

*Vice Presidents*.—Hon. H. W. BISHOP, of Lenox; Hon. NATHANIEL EDDY, of Oxford, and Col. D. HEARD, of Wayland.

*Secretaries*.—Mr. CHARLES L. FLINT, of Boston, and Mr. T. M. SROUGHTON, of Gill.

*Executive Committee*.—Hon. SIMON BROWN, of Concord; Messrs. HIRSH NASH, of Williamsburg; J. S. ELDRIDGE, of Canton; GEO. HASKELL, of Ipswich, and LEWIS DEMOND, of Ware.

The following are the rules:

**RULE I.**—Speeches shall be limited to fifteen minutes each, unless by unanimous consent of the meeting, except in the case of the President of the evening, who shall occupy what time he may see fit.

**RULE II.**—The officers chosen shall hold their offices during the month of January, except the President, who shall be nominated each evening by the Executive Committee.

**RULE III.**—It shall be the duty of the Executive Committee to propose subjects, to nominate a President, and to invite speakers each evening.

The report was accepted.

On taking the chair, His Excellency addressed the meeting, alluding to the formation of the society, and the objects to be gained by such assemblages. He said there was no profession on which the interests of the Commonwealth are so dependent, none with which the prosperity of our people is so closely allied, as agriculture. The question which is presented for discussion is not only interesting to the tiller of the soil, but to all others—in a word it touches every interest in life; it is not only the interests of the farmer, but the merchant, scholar, mechanic and philosopher; the individual, the family, the State and the consolidation of States are all dependent on agriculture.

The question to be discussed this evening opens a wide field, but I am not so well able to speak on it as most of those present, and I shall not presume to occupy the time of the meeting by giving my crude views on the subject.

Speaking of the question, "*What will tend to make agriculture profitable and pleasant as a pursuit?*" the speaker asked, what is the general motive of men, and what controls them in business affairs? The profit of any pursuit may be found in the acquisition of wealth or in the advanced social position, and we are to determine what are covered by the words of the subject, "profit and pleasure."

The Governor spoke of mercantile life, and the

risk engaging in it entailed, and said that when a man had tried everything else for a living and failed, he comes back to the earth, his highest, greatest and most lasting satisfaction, as there is no other pursuit that presents so many sure means of support as this. He admitted that mercantile life dazzled our country youth, as, if money was made in this, it was made more rapidly, but it should be the aim of the society to instil into the minds of young men and women the pleasures of an agricultural life, and by showing how it may be made profitable, create a pleasure in it. He spoke in warm terms of gratification of the objects of the society, and said that to show the strong claims of agriculture, the best means was by such meetings as these, repeated in various ways and places.

In conclusion, he assured the society of his deep interest in the objects of the meeting, and hoped that success would follow its deliberations.

Hon. H. W. BISHOP, of Lenox, next spoke. He said there was a great difficulty in bringing the agriculturists of the State together; they meet in clubs, &c., covering a limited area, and when they get such meetings as these we may all learn something valuable. The question for discussion was new to him, but he felt pleasure in contemplating it. The pleasures of agriculture none can detail, as they are so numerous, and the profits could not be enumerated in one evening. It had been well said that riches could not be acquired fast by agriculture, but what was of far more moment, they were sure. Judge Bishop then spoke of the reliance to be placed on the husbandman in case of invasion or intestine commotion, and said that not only by his money the State would be defended, but by his bone and sinew. The speaker said he had passed the sixth decade, and from his experience he would advise every man with a family not to leave agricultural pursuits in the hope of making a rapid fortune in commerce, lest he bring himself and family to penury.

Passing to the consideration of the profits of agriculture, he said that we must look to heaven for these, and not to Congress. Heaven sends the dews, clouds and seasons to grow and ripen the crops, but Congress cannot give the slightest assistance. We may be, and are encouraged, said he, by legislation, and more particularly by those modes recommended by the chairman, but no legislation affects the crops.

The speaker, alluding to the pleasures of agriculture, said there were no pleasures equal to those of the man who had his acres unincumbered, as he always would have his bread and meat, and these pleasures the agriculturist may arrogate to himself entirely. It has been said in days past, over and over again, that agriculture was not an honorable profession, and that it was a slow way

of making money, and the lawyer, doctor and clergyman were leaders in the professions by tacit acquiescence, but now mechanical and scientific improvements have lent their aid to the farmer to that extent that he is at the head of professional men. There is no occupation in life to which so much of science can be applied, and the speaker expressed his gratification in seeing that a bill had been introduced into the Legislature for a horticultural or agricultural garden in the vicinity of Boston. He concluded by speaking of vegetable physiology, and the attention given to the food of plants, asserting that the mechanical mixture of the soils is making a progress which will give to agriculture that social and political standing in the Commonwealth that science will always give.

Rev. Mr. SANGER expressed the pleasure it gave him in seeing the countenance given to the cause. The last speaker had spoken of science as requisite for the profit and pleasure of the agriculturist, but he thought knowledge should be diffused, and this he thought would be the true way of bringing pleasure. We must have knowledge of the soil, and the ingredients composing it, and then we want to know what vegetation requires in the soil. Mr. Sanger said that in the part of the country where he had lived, 20 or 30 years ago, 20 to 25 bushels of corn to the acre was considered rather above an average crop, while within the past 10 years premiums have been given for from 80 to 100 bushels to the acre on the same land. He spoke of the yield of wheat in the same section, and said that now it nearly doubled the produce per acre of the land in Ohio, and this was, in a large number of cases, the result of an acquaintance with the soil.

The speaker urged on farmers the encouragement of a love of the beautiful as producing a contented mind, and recommended the planting of trees and flowers around their dwellings, thus connecting beauty with the necessities of life.

Hon. JOSIAH QUINCY, Jr., being called on, said he thought the great question in relation to agriculture was, "Will it pay?" and he thought the purpose should be to show that it will. He spoke of farming in England and France, and said that in these countries men invested very large amounts of capital in cultivating small farms, thus making it a very profitable investment, and getting the most from the land, while here our farmers are too desirous of extending their labors over too much territory, and not half cultivating any of it. He said that there was nothing that paid better than money judiciously expended on the soil, and in proof of this he spoke of pet pieces of ground that yielded at the rate of \$50 to the acre, and he asked why this might not be extended to 100 acres? He had 10 acres of ground on which the hay was not worth cutting; finding this, he broke it up,

fertilized it, harrowed and seeded it, at an expense of \$50 per acre, and the first year he got 2½ tons of hay from it, which he could sell at the barn for \$20 per ton, thus paying in one year for the entire expense. He had last year raised 300 tons of hay, which cost him \$700, which he harvested for \$2 50 per acre, while his neighbor could not do it for \$5; but the speaker said he had the advantage of the best machines, mowing, raking, &c., and it is in not having these that farmers lose money. He thought farmers were the most extravagant men in the world, and he showed this by their neglect in saving manure. Mr. Quincy then showed that a cow kept up during the year will produce more value in manure than the value of her milk, relying on the estimate of Dr. Samuel L. Dana, that she produces 21 cords. He alluded to the care which is taken in Europe in this matter, and spoke of the result in bountiful harvests.

The great element of farming, said he, is saving, with a liberal and judicious expenditure, and we must either invest more capital, or reduce the area of our farms to make the land yield what it will do, and he considered that it would be far better if farmers invested their profit in their land than in bank or railroad stocks.

Mr. BUCKMINSTER spoke of the mental and bodily health a farmer enjoys, and urged on the meeting the importance of instilling the pleasures and profits of agriculture as well as the importance of health, on the minds of the rising generation. He also advocated the importance of farmers who know how to make farming profitable, assigning to their children a small piece of ground, and teaching them how to cultivate it, so as to incite a desire to acquire more, and this he contended would be the best course by which to forward the cause of agriculture.

Mr. HOWARD, editor of the *Cultivator*, related an incident which came to his knowledge last year, of a Dutch farmer, in New York State, who, from a squatter on seven acres of land, and one cow, had become the owner of a farm of 50 acres, with 15 cows, and a good house and farm buildings, and all acquired from the careful saving of manure. He attributed the dissatisfaction of farmers to the waste of this valuable assistant, and contended that, until more care was bestowed on this, farmers could not expect to realize large returns. He also spoke of English farmers, and urged on the farmers here the necessity of keeping book accounts of the cost of all produce.

Mr. GARDNER, of Swansea, thought a man should have an aptness for his calling, and this more particularly applied in the case of the farmers, as if a man liked his business he would be industrious in proportion. He thought the argument that a man must have a capital to commence

farming was not entirely correct, as he had knowledge of quite a number of men who had acquired good farms from being thrifty day laborers. He alluded to the knowledge of science by farmers, and said he thought that in the majority of cases a farmer learned more from actual experiment than from the study of books.

On motion of Col. HEARD, the same subject was assigned for consideration at the next meeting, when the Society adjourned to Monday evening next, at 7 o'clock.

#### EXTRACTS AND REPLIES.

##### MAKING BUTTER IN WINTER.

I have found no difficulty in making butter in winter; my process is simply this: keep the milk in a cool place; if it freezes it will not injure it; collect the cream about ten days, then place the pot of cream near a fire, stirring it occasionally, till it becomes nearly milk-warm. Then scald the churn, and the butter will come in about half an hour, of a good quality, fit for any man's table. The great difficulty is in not having the cream of a right temperature before churning. If Mr. Leonard will try this method, I think he will have no difficulty in future.

Please inform me what kind of churn is best.  
Derry, N. H., 1860. DAIRYWOMAN.

REMARKS.—We cannot tell which of all churns is the best. Out of some five or six kinds which we have tried, we prefer and use the Fyler churn.

A correspondent in Auburn, N. H., states that by setting the milk on the stove as soon as it is strained, and bringing it to scalding heat, and by keeping the cream in the warm kitchen, the butter will come in from twenty-five to thirty minutes.

M. P. KNOWLES, of Rangely, Me., scalds the milk as above, and *warms* but does not *heat* the cream. To give the butter a good color, he says, I scrape a carrot and warm it in about three pints of cream, and strain it into the churn.

##### ABOUT GRAPES.

I have transplanted several kinds of wild grapes into my garden for trial, but the quality is not improved, as they only ripen sooner in a more favorable location; I shall not longer give them room, since I have got the Diana, Concord, Isabella, Sage, Globe Seedling, Warren Seedling, the Cherry grape, and others. I have the early Muscadine, which ripens two weeks earlier than the Diana or Concord, and is the best early sweet grape I have. The Sage and Globe Seedling and Warren Seedling, are early and quite good grapes, the Sage, I think best; the Catawba does not ripen with me. I have eaten them ripe, raised by Charles H. Holt, of South Lyndeborough, N. H. We want the best grape that is productive, and will ripen in the location where we cultivate.

OLIVER BUTTERFIELD.

Francestown, N. H. Jan., 1860.

##### GEESE AND GOSLINGS.

Will some of your many correspondents give me a few directions in regard to the raising and management of geese? For the novelty of the thing, I purchased last spring three geese and a gander, of the common kind. In due time, one of them brought forward six goslings. Failing in our efforts to make them eat, we drove them into the river near by, leaving them to manage to suit themselves. The other two geese were sitting on the opposite bank of the river, where the gander, also, had posted himself as guard. The moment the goose and her progeny were discovered, his gandership flew across and escorted them to the other side with noisy rejoicings that made the welkin ring. Jealous of the attentions bestowed upon their quondam companion, the others quit their nests and insisted upon sharing her maternal cares. However, we forced one to return to her setting till she produced four goslings, when she adjourned, *sine die*. These weaklings, meeting with general ill treatment, soon turned their last summerset, and the geese uniting in care of the older ones, brought them all up finely, without other interference.

How often should geese be plucked during the warm season?

Where can the "Leghorn fowls," mentioned in your last week's paper, be obtained, and at what price?

Nashua, N. H., 1860.

REMARKS.—We have never raised geese, and know little about them. Will some one reply to our fair correspondent—for it is a lady who writes—and inform her, also, where the Leghorn fowls can be obtained?

##### LICE ON COLTS.

I wish to inquire through the columns of the *Farmer* what will rid my colt of lice? By giving such information you will oblige

SAMUEL CHASE NAY.

Raymond, N. H., 1860.

REMARKS.—Take a soft brush and a little pure lard, and rub the colt all over with it; a table spoonful of lard will be nearly sufficient. Repeat this every third day, keeping the colt dry and warm, and feeding him liberally through the winter. If this does not succeed, we will suggest another remedy.

##### MANURE FROM TANNERIES.

I wish to inquire whether manure from a tannery is good for agricultural purposes?

Pawtucket, 1859.

A. B. FRANKLIN.

REMARKS.—If the scrapings of hides and the hair are mixed with other rubbish about the tannery, they form an active and valuable manure.

##### A CURE FOR CHILBLAINS.

Put a large spoonful of fine salt on the place affected, in the morning, and put the sock on carefully so as not to disturb the salt; then wet the outside of the sock with vinegar. By doing this a few times a cure is certain.

SOUND FEET.

Auburn, N. H.

## WART ON A COLT.

Please tell what will take a wart from a colt, and oblige  
C. W. FAY.

East Hubbardston, Vt.

REMARKS.—Mr. A. Briggs, of Deerfield, Mass., says that potash dissolved to a paste laid upon the wart for half an hour, and then taken off and the part washed in vinegar, will cure a wart on man or beast. We do not know personally.

UNITED STATES AGRICULTURAL SOCIETY.—At the recent meeting of this Society, the following officers were chosen:—Henry Wagner, Western New York, President; B. B. French, Treasurer, and Ben: Perley Poore, Secretary. On Thursday morning, 12th, the President attended the United States Agricultural Society to receive his diploma as an honorary member. The President of the Society, in delivering it, said that it was a strange coincidence that every President of the United States had either been called from the plow, like Cincinnatus, or else retired to it at the expiration of their terms of office. Mr. Buchanan, in reply, spoke of his taste for agricultural pursuits, though he had but little opportunity to indulge in them. He paid a high tribute to the tillers of the soil, and anticipated his return to Wheatland in less than eighteen months, to enjoy the independence and quiet of rural life. His speech was frequently interrupted by applause.

Hon. Marshall P. Wilder, of Massachusetts was voted the "grand gold medal of honor," as the founder and constant patron of the society. This is the largest and most valuable medal struck in America.

SPONTANEOUS COMBUSTION OF HAY.—"Omega," of Roxbury, in a communication on "spontaneous combustion in hay," in the *Farmer* of November last, asks for more light on the subject, although he seems convinced that spontaneous combustion in salt hay was the cause of setting his barn on fire. Mr. Geo. Whitney, of Essex, Vt., says in a note to us,—

"We get in our hay very green up here, and if there is any danger of spontaneous combustion in so doing, we should like to know it. Will you, or some of your readers, tell us?"

We have no knowledge on the subject; those who have will please to communicate it.

FATAL DISEASE AMONG CATTLE.—Our agricultural readers will regret to learn, says the *Transcript*, that Winthrop W. Chenery, Esq., of Belmont, has lost twenty-seven head of valuable cows and oxen within the past six months, by pneumonia, or inflammation of the lungs, (an infectious disease, similar to the "murrain," now prevailing in the north of Europe.) Mr. Chenery has imported the best Dutch cows that ever came to this country, and it is a public loss that such stock should meet such a fate. The last cow that died this week was the largest animal in the United States, and weighed 3260 pounds! The skeleton has been presented to Professor Agassiz for his new Museum. Mr. Chenery's farm was formerly

owned by the late James Brown, Esq., is on the summit of Wellington Hill, and is considered one of the healthiest spots in the neighborhood of Boston.

## PRUNING APPLE TREES.

In another column we give an article upon the subject of pruning and transplanting apple trees, and are happy to present it at this early day, in the hope that it may prevent some persons from spoiling their trees by pruning them when the sap is freely flowing. We have often called attention to this subject, and in one or two instances have endeavored to show the reasons why spring pruning is injurious. It is much more to convince the unbelievers in the orchard, than it is on paper.

The candid attention of the reader is asked to Mr. GOLDSBURY's article, and also to what has heretofore been said in the *Farmer* on the subject.

IMMENSE FORESTS.—Spars are sent from Puget Sound to Asia, the Sandwich Islands, Australia, and to the navies of England and France. The Hon. Isaac I. Stevens, Congressional Delegate from Washington Territory, has stated that "within one mile of the shores of the Sound, there is more timber than can be found on all the tributaries of all the waters of Maine."

KEEPING MILK SWEET.—A correspondent of the *Homestead* found that, in sending milk to market, though it left the dairy perfectly sweet, it was often curdled on delivery to customers. To remedy this, the cans were covered with cotton cloth soaked in salt water. By this method the curdling of the milk was entirely prevented.

## YOUTH'S DEPARTMENT.

## "THE GRIT BARE-LEGGED LADDIE."

Sixty years ago, a stout youth of eighteen years old, who had been known among his neighborhood as "grit bare-legged laddie," called on a poor village schoolmaster, and said—

"I would like to attend your evening school, sir."

"What do you wish to study?" asked the teacher.

"I want to learn to read and write," replied the lad.

The teacher looked into the lad's face with a somewhat scornful glance, shrugged his shoulders, and said:

"Very well, you can attend."

Now, if that bony lad had said to the teacher, "I mean to become a great inventor, to be the companion of rich and noble men, to hold conversation with kings, and to write my name among the great men of the world," I dare say the teacher would have called the boy a fool for cherishing such wild dreams. Yet that poor bony lad, who at eighteen did not know the alphabet, did all those things before he died.

Who was he? His name was George Stephenson, the great railway pioneer!

It was not the fault of young George that he

was ignorant, it was only his misfortune. His parents were too poor to send him to school. He was the son of the fireman of a pumping engine in a colliery. His birthplace was a cottage with a clay floor, mud wall and bare rafters. He had to help earn his living from his earliest years, first by herding cows and barring up the gates of the mine at night. Next he was put to picking stones from the coal, and after that to driving a horse, which hauled coal from the pit. By-and-bye he was made assistant fireman to his father. When he was seventeen he was made plugman of a pumping engine—a higher post than his father's, and had climbed, as it seemed, to the top of his ladder. What hope was there for a youth who could not read at seventeen?

But George had hope in his breast. His engine was a lesson-book to him. He took it apart and put it together again, studied it, loved it, and when he was told that there were books which told about engines, he made up his mind to go to school.

To school he went, and soon learned all that the village masters could teach. When twenty years old he was made brakesman, and began to think about inventing better engines than he saw about him.

His next work was a railway eight miles in length, and from this point he went on until he was known as the great railway pioneer of the world.

George was often laughed at by men who thought themselves much wiser than he. One day he was proposing to build an engine to run twelve miles an hour. A grave-looking gentleman thinking to put him down, said:

"Suppose one of these engines to be going along a railroad at the rate of nine or ten miles an hour, and that a cow were to stray upon the line, would not that be a very awkward circumstance?"

"Yes," replied Mr. Stephenson, "very awkward indeed—for the cow!"

Thus, by his own industry, did the "grit bare-legged laddie" climb to a very high place among men. Great men, and even kings, sought his advice, wealth flowed into his purse; his name was honored, his character respected. At a ripe age he died and went to his eternal reward.

Let this sketch cheer on the boys and girls to patient effort in the path of duty. Learn something every day. Press forward! Be good, and you will prosper.

#### GREAT MEN WHO ROSE FROM THE RANKS.

From the barber's shop rose Sir Richard Arkwright, the inventor of the spinning jenny, and the founder of the cotton manufacture of Great Britain; Lord Tenterden, one of the most distinguished of English Lord Chief Justices; and Turner, the very greatest among landscape painters. No one knows to a certainty what Shakespeare was; but it is unquestionable that he sprang from a very humble trade. The common class of day-laborers has given us Brindley, the engineer; Cook, the navigator; and Burns, the poet. Masons and bricklayers can boast of Ben Johnson, who worked at the building of Lincoln's Inn, with a trowel in his hand, and a book in his pocket; Edwards and Telford, the engineers; Hugh Mil-

ler, the geologist; and Allan Cunningham, the writer and sculptor; whilst amongst distinguished carpenters we find the name of Inigo Jones, the architect; Harrison, the chronometer maker; John Hunter, the physiologist; Romney and Opie, the painters; Professor Lee, the Orientalist; and John Gibson, the sculptor. From the weaver class have sprung Simpson, the mathematician; Bacon, the sculptor; the two Milners, Adam Walker, John Foster, Wilson, the ornithologist; Dr. Livingstone, the missionary traveller; and Tannahill, the poet. Shoemakers have given us Sturgeon, the electrician; Samuel Drew, the essayist; Gifford, the editor of the *Quarterly Review*; Bloomfield, the poet, and William Carey, the missionary; whilst Morrison, another laborious missionary, was a maker of shoe lasts. Within the last year, a profound naturalist has been discovered in the person of a shoemaker at Banff, who, while maintaining himself by his trade, has devoted his leisure to the study of natural science in all its branches, his researches in connection with the smaller crustaceæ having been rewarded by the discovery of a new species, to which the name of *Franiza Edwardsii* has been given by naturalists.

Nor have tailors been altogether undistinguished, Jackson, the painter, having worked at that trade, until he reached manhood. But what is, perhaps, more remarkable, one of the gallantest of British seamen, Admiral Hobson, who broke the boom at Vigo in 1702, originally belonged to this calling. He was working as a tailor's apprentice near Bonchurch, in the Isle of Wight, when the news flew through the village that a squadron of men-of-war were sailing off the island. He sprang from the shop-board, and ran down with his comrades to the beach to gaze upon the glorious sight. The tailor boy was suddenly inflamed with the ambition to be a sailor, and, springing into a boat, he rowed off to the squadron, gained the admiral's ship, and was accepted as a volunteer. Years after he returned to his native village, full of honors, and dined of bacon and eggs in the cottage where he had worked as a tailor's apprentice. Cardinal Wolsey, De Foe, Akenside, and Kirke White, were the sons of butchers; Bunyan was a tinker, and Joseph Lancaster, a basket-maker. Among the great names identified with the invention of the steam-engine are those of Newcomen, Watt, and Stephenson; the first a blacksmith, the second a maker of mathematical instruments, and the third an engine fireman. Dr. Hutton, the geologist, and Bewick, the father of wood-engraving, were coal-miners. Dodsley was a footman, and Holcroft a groom. Buffin, the navigator, was a common seaman, and Sir Cloudesley Shovel, a cabin-boy. Herschel played the oboe in a military band. Chantrey was a journeyman carver, Etty a journeyman printer; and Sir Thomas Lawrence the son of a tavern-keeper.

Michael Faraday, the son of a poor blacksmith, was in early life apprenticed to a book-binder, and worked at that trade until he reached his twenty-second year; he now occupies the very first rank as a philosopher, excelling even his master, Sir Humphrey Davy, in the art of lucidly expounding the most difficult and abstruse points in natural science. Not long ago, Sir Roderick Murchison discovered, at Thurso, in the far north of Scotland, a profound geologist, in the person of a baker named Robert Dick. When Sir Roderick called



upon him at the bake-house, in which he baked and earned his bread, Dick delineated to him, by means of flour upon a board, the geographical features and geological phenomena of his native county, pointing out the imperfections in the existing maps, which he had ascertained by travelling over the county in his leisure hours. On further inquiry, Sir Roderick ascertained that the humble individual before him was not only a capital baker and geologist, but a first rate botanist. "I found," said the Director General of the Geographical Society, "to my great humiliation, that this baker knew infinitely more of botanical science, ay, ten times more, than I did; and that there were only some twenty or thirty specimens of flowers which he had not collected. Some he had obtained as presents, some he had purchased; but the greater portion had been accumulated by his industry, in his native county of Caithness, and the specimens were all arranged in the most beautiful order, with their scientific names affixed."—*Self-Help*, by Samuel Smiles.

#### LITTLE WILLIE AND THE APPLE.

Little Willie stood under an apple tree old,  
The fruit was all shining with crimson and gold,  
Hanging temptingly low;—how he longed for a bite,  
Though he knew if he took one it wouldn't be right.

Said he: "I don't see why my father should say  
'Don't touch the old apple tree, Willie, to-day;'   
'I shouldn't have thought—now they're hanging so low—  
When I asked for just one, he should answer me 'No.'"

"He would never find out if I took but just one,  
And they do look so good, shining out in the sun,  
There are hundreds and hundreds, and he wouldn't miss  
So paltry a little red apple as this."

He stretched forth his hand, but a low, mournful strain  
Came wandering dreamily over his brain;  
In his bosom a beautiful harp had long laid,  
That the angel of conscience quite frequently played.

And he sung: "Little Willie, beware, O, beware,  
Your father has gone, but your Maker is there;  
How sad you would feel if you heard the Lord say,  
'This dear little boy stole an apple to-day.'"

Then Willie turned round, and as still as a mouse,  
Crept slowly and carefully into the house;  
In his own little chamber he knelt down to pray  
That the Lord would forgive him and please not to say,  
"Little Willie almost stole an apple to-day."

### LADIES' DEPARTMENT.

#### SWIMMING FOR WOMEN.

##### THE SWIMMING SCHOOL AT PARIS.

As many parents are wishing to know how girls can be taught to use their limbs in the water, it may be interesting to them to hear how the art is taught at Paris. The water is that of the Seine. This is the least agreeable circumstance in the case, as the water of the Seine is quite as unfragrant in the summer months as that of the Thames. Whether it is purified on entering the baths, I do not know. Let us hope that it is. The bath is moored in the river, and the space occupied by water is 120 feet in length; a course long enough to afford room for all the exercises connected with swimming. A wooden platform, three or four feet under water, reaches to about the middle of

the width of the bath; and this is for the use of children, and mere bathers who do not swim. The other half is of a considerable depth in the middle, admitting of practice in genuine diving. The dress is excellent for the purpose. It is made of a light woollen fabric, which does not absorb much water. The trousers are loose, and fastened at the ankles. The upper dress, also loose, extends to the knee, and is belted round the waist, and closed at the neck.

It is just as decent a dress as English ladies used to wear when Bath was called "The Bath," and when wigged gentlemen and powdered ladies used to wade about in full trim, and chat in the water. The first step in the process of teaching is to make the pupils understand how to keep on the surface, and know how to sink to the bottom. Most people know that to spread out the limbs is to float, and to double one's self up is to sink; but it is not everybody who knows that the quickest way of going to the bottom is to raise the arms above the head. This is precisely what women do when they fall out of a boat, or find themselves overboard in a shipwreck. Up go their arms in their terror; and down they go to the bottom like a shot. This is the action used by divers, who want to reach that point by the shortest way. From the ceiling of the Paris bath hangs a rope, which travels along on a sort of crane. Where this rope touches the water a broad belt is attached to it. The belt is fastened easily about the pupil's waist, supporting her in the water, and leaving her at liberty to learn the action of the limbs in swimming. She is made perfect in these, and must then try her powers without support. To render her safe and preclude fear, the instructor, (who is a master and not a mistress,) walks along the edge, just before her, holding a pole within her reach, which she can grasp in an instant, if fatigued or alarmed. It does not follow that we must have swimming-masters in England.

The art is taught all along the rivers of Germany, and invariably by women in the women's baths. In that case the dress is less elaborate and there is more freedom and simplicity in the practice. It is a remarkable sight when the master is followed by ten or twelve pupils, his pole reminding one of the magnet which brings swans or fishes to the bread in a basin of water, in the old-fashioned toy which astonishes children. The second pupil has a hand on the shoulder of the first, and swims with the other three limbs; the third on the shoulder of the second; and so on, looking like a shoal of mermaids. When so thoroughly at ease as to amuse themselves for a long time in the water, the ladies sometimes get hungry; and then is seen another remarkable sight, not quite so pretty. They rush from the bath to a confectioner's shop, which opens upon it, and may be presently seen swimming with one hand, and with the other eating their lunch, completely at ease. After learning the art in fresh water, it is mighty easy to swim in the sea, from the density of the water, and scarcely possible to sink. A woman who knows how to float is safe for many hours in the sea, as far as keeping on the surface is concerned. Among breakers or sharks, or in extreme cold, the peril is not of drowning simply. The simple peril of drowning might be reduced to something very small, if everybody could swim.—*Once a Week*.



## DOMESTIC RECEIPTS.

**HINTS TO HOUSEWIVES.**—Vessels intended to contain liquid of a higher temperature than the surrounding medium, and to keep that liquid as long as possible at the highest temperature, should be constructed of materials which are the worst radiators of heat. Thus, tea-urns and tea-pots are best adapted for their purpose when constructed of polished metal, and worst when constructed of black porcelain. A black porcelain tea-pot is the worst conceivable material for that vessel, for both its materials and color are good radiators of heat, and the liquid contained in it cools with the greatest possible rapidity. On the other hand, a bright metal tea-pot is best adapted for the purpose, because it is the worst radiator of heat, and therefore cools as slowly as possible. A polished silver or brass tea-urn is better adapted to retain the heat of the water, than one of a dull brown color, such as is most commonly used. A tin kettle retains the heat of water boiled in it more effectually if it be kept clean and polished, than if it be allowed to collect the smoke and soot to which it is exposed from the action of the fire. When coated with this, its surface becomes rough and black, and is a powerful radiator of heat. A set of polished fire-irons may remain for a long time in front of a hot fire, without receiving from it any increase of temperature beyond that of the chamber, because the heat radiated by the fire, is all reflected by the polished surface of the irons, and none of it is absorbed; but if a set of rough, unpolished irons were similarly placed, they would become speedily so hot, that they could not be used without inconvenience. The polish of the fire-irons is, therefore, not merely a matter of ornament, but of use and convenience. The rough, unpolished poker, sometimes used in a kitchen, becomes speedily so hot that it cannot be held without pain. A close stove, intended to warm apartments, should not have a polished surface, for in that case it is one of the worst radiators of heat, and nothing could be contrived less fit for the purpose to which it is applied. On the other hand, a rough, unpolished surface of cast iron, is favorable to radiation, and a fire in such a stove will always produce a most powerful effect.—*Dr. Lardner.*

**A BOILED DISH.**—Almost every family has a dinner, as often as once a week, of what is popularly called a "boiled dish," and which, properly cooked, is one of the best dishes in the world; but all cooks do not know the best way to boil corned beef. The common method, in order to make it tender, being to put it in cold water, and let beef and water come gradually to a boil. This certainly makes beef tender, but it also extracts all the strength and juices. A better way is to wait till the water boils before putting in the beef; it will then be equally tender, and will retain all its strengthening and juicy properties. Many housekeepers suppose that putting meat in hot water inevitably renders it hard and tough; and so it will, if the water is only hot; but if it boils, the effect will be the reverse. Just as putting a discolored table-cloth in hot water will set the stains; but put it in boiling water, and it takes them clean out. The same rule applies to all boiled meats. Hams, after boiling four or five hours, should be taken out, the skins taken off, and cracker or bread crumbs crusted over them, and then baked in a

brisk oven for one hour. A leg of mutton can be treated successfully in the same way, only it does not require to be boiled so long. Of course, the boiling process should be gentle.—*Mrs. Croley.*

**RECIPE FOR CURING SWEET HAMS.**—The following recipe for curing hams, was furnished us by Mrs. James Darke, of Berkley, who received it from England.

For four hams, take two ounces of saltpetre, two quarts of molasses, one-quarter of a pound of pepper, half an ounce of cochineal, about three pints of fine salt. If the hams have been in salt pickle, the salt will not be needed; pound the saltpetre and cochineal, then put all these ingredients together; and rub the hams thoroughly with the pickle; turning them every day. Let them remain in the sweet pickle two weeks, then take them out, smoke them a week or more, to suit the fancy.—*Taunton American.*

## A WORD ABOUT SKATING.

The season is here, during which nature gives to all men, women and children, and especially to those who are of slender constitution, and whose pursuits are sedentary, one of the best fountains of health that the world contains. She will clothe every stream and lake with a polished enamel, inviting all human beings to go out into the open air, and to seek amusement, and health of larger quantity and better quality than they can obtain in any other way. Skating combines more that is desirable than any other form of exercise, and it is especially valuable to women. Not only is it graceful and exhilarating, but it is a wonderful tonic, and will do much, if it can be generally followed by females, toward elevating the physical character of our race. Every girl should learn to strap on a pair of skates as soon as she is old enough to run out doors, and every woman whose duties are in doors, should daily, if possible—at any rate, frequently—buckle on the irons, and glide over the glittering ice. The pleasure, the health thus attainable are beyond telling. Parents, get skates for your girls especially, (the boys will get them for themselves), and drive them but daily to play on the ice. The glowing cheek, the expanding form, the robust health that follows, will be a rich reward.—*Gospel Banner.*

## OBEDIENCE TO THE MOTHER.

"Come away; come instantly, or I will call your father," I heard a mother say to her child, who was playing in the street before her window. I did not stop to learn the result, but I pitied the poor mother who had not power within herself to control her child, and who so unhesitatingly declared her inefficiency.

A mother should never thus appeal to the father's authority to strengthen her own, nor should she admit, by thought, word, or deed, that her power is inferior to his. God never made it inferior, and he requires as prompt obedience to the one as to the other. The mother who allows herself thus to appeal to another is continually weakening the authority she should exercise over the children. She is herself teaching them to disobey the commandment which inculcates obedience to parents, for what child can honor a mother too weak to govern him?



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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#### CALENDAR FOR MARCH.

The stormy MARCH is come at last,  
With wind, and cloud, and changing skies :  
I hear the gushing of the blast  
That through the snowy valleys flies.

Ah! passing few are they who speak,  
Wild, stormy month, in praise of thee ;  
Yet, though thy winds are loud and bleak,  
Thou art a welcome month to me.—*Bryant.*



MARCH, stormy and changeful as it is, has yet this redeeming grace—that it brings with it a promise of something better. Though storms may come with all the fury and more than the gloom of

December, we know that winter is departing, or to use one of those common phrases which have been common principally on account of their expressiveness—"the heart of the winter is broken." We, of the northern latitudes, have always this advantage over those who dwell in regions of perpetual summer,

that all that we have of beauty in climate is heightened a thousand fold by the contrast of a world to all intents and purposes dead, half the year. The few bright sunny days that are vouchsafed to us in March, how beautiful they seem in their sombre setting of clouds and storms and "chilling winds." Every spot of bare ground, from which the sun has thawed away the snow a little prematurely, looks familiar and welcome as the face of a friend who has long been absent. Even a flock of wild geese flying over, awaken an interest, and their cackling, which is in itself by no means melodious, has a kind of

music for our ears, for we know when we hear it, they have felt in their downy bosoms that summer is coming, up in the hills and mountains of New England. Something which we call instinct told them so when they were down among the swamps and everglades of Florida, and straightway they packed up, and set off on their long journey. No man can interpret the guide-book which directs their course, but right through the air they come, looking serenely down upon us, with our railroads and telegraphs, and poor attempts at balloon-making.

The pleasure with which we listen to the first croaking of the frog, too, would be incomprehensible to one who had never associated it with the loosening of frozen brooks, and the first faint tinge of green on the grass, and the swelling buds of the trees. We are always glad to hear him singing again in the far-off meadow, albeit he sets his tunes in a minor key, and sings them in the pensive twilight.

Probably all animals have premonitions of returning summer. It is certain that all wild animals do, for they plan their work, and make their preparations for a new mode of life with as much discrimination as man himself. Our domestic animals, being dependent on us for their support, do not lay their plans in the same way, and yet we seem to see in them a new element of lazy contentment, or sportive joy, which just as plainly expresses their approbation of the change that is gradually coming over the face of nature.

For example, look at that ox, as he stands looking out of the barn door, or in the sunny corner of the yard, chewing his cud in a meditative mood. Don't you see plainly written on his countenance that he is thinking of the "better days a coming," when he shall roam through the pastures at will, helping himself in the natural way to a splendid feast of green grass, instead of eating dry hay pitched at him with a fork, by the farmer's boy? Don't you see that he is instituting a comparison

between the watering trough where he and his companions have fought for freedom all winter, and the pure, running brook by the old willow tree? The sheep, we can't help imagining, has not quite got over his last impressions of getting his own living—when he was left, late in November, to browse out on the bleak, barren hill-side, and grind his poor nose down to a point, among the sharp rocks, in search of a bite, which, after all, proved to be nothing but a bramble or a thistle. If he has had an experience of two or three years, he may be looking fearfully forward to the time when the shearers will rob him of his wool again, and leave him shivering, naked in the blast. For he has never heard about the wind being "tempered to the shorn lamb," and therefore cannot bring the consolations of philosophy to his aid.

Yet even the sheep, stupid, not to say *sheepish*, as he looks, must rejoice to feel the warm south wind playing through his "hyacinthine locks," though doubtless his anticipations are much colored and marred by the trials heretofore mentioned, and numerous others with which his mortal state abounds, as fettered limbs, great dogs, &c., &c. Strange, that an animal so frisky as the lamb, whose name has indeed become the very synonym for playfulness—should ever turn out an old sheep. Does not the fact that he can so soon forget his lambhood, go far to show that the cares of life do press heavily upon him? You call a person a "sheep," and he does not usually feel complimented; and yet when a mother would use the strongest expression of endearment for the infant on her knee, she says—"little lamb."

But the most triumphant of all animals is the rooster. Glad are we to hear his "clarion" out in the free air once more. Lord of the manor is he, by an inherent right which no one would think of disputing. That he is weather-wise, is abundantly proved by the old stanza,

"Crow on the fence,  
The storm's going hence;  
Crow on the ground,  
The storm's coming down."

[Of course we do not hold ourselves responsible for the rhyme of "ground" and "down."]

It must have been in consideration of this peculiar gift of his, that his effigy has been so long used as a weather vane, and, in our opinion, nothing so handsome has ever been substituted for it. Rampant horses, wooden men with swords in their hands, oxen, fishes, arrows,—none of these come up to the mark, like a real old-fashioned weather cock. When he would foretell fair weather, how triumphantly he

"Turns his golden crest,  
To catch the breezes of the West."

But when a storm is brewing, he switches his long tail-feathers about, and looks defiantly to the north-east, letting the wind and rain beat against his breast with unshrinking boldness.

When a certain barn was burned to the ground, and two unfortunate *pigs* perished in the flames, a young man was heard to remark that he did not care so much for the property, "but he did hate to see *human nater* burnt."

Everybody laughed, but the individual in question was not so very far out of the way, besides showing a sympathizing spirit which did him honor. There is, in fact, a great deal of "human nater" in animals, as every one may know who will watch their habits and customs.

Existence should be made much more pleasant to them than it is, for between them and us there is this difference, that while all our suffering is, or may be, disciplinary, and will be more than made up to us hereafter, *they* suffer without knowing why, without even being capable of improving by it, and when they die by violence to minister to our wants, or perish after a life spent in our service, that, as we suppose, is the end. They have no reward. Ought not the harmless creatures, then, to receive kindness from our hands? Is the subject beneath our notice?

When the world is waking up to life, and an electric thrill of happiness runs through us, in which all animal and vegetable things seem to sympathize, what an appropriate time to put into practice human resolves!

*For the New England Farmer.*

#### FOWL MEADOW GRASS.

MESSES. EDITORS:—When I was a boy in my native town, Lancaster, Worcester country, there was a tract of land, lying on both sides of the Nashua River, which had never been cleared, offered for sale, which my father bought. He hired help, and cut off a large amount of lumber. On the intervals, there were patches of grass quite extensive, which he called native grass. But at hay time, one of his mowers said it was called "fowl meadow grass," and so named, (as I remember he said,) because a remarkable fowl was found dead there. I never knew it cultivated, till I reaped off the heads, some fifty-six years ago, which I have often done since. Trying it on different soils and seasons of the year, mixed and alone, I esteem it first rate stock hay. Sown on the surface of damp burnt land, it does admirably, and will not run out, if cut late. I will not say that early cutting kills it, or that it requires the annual dropping of ripe seed; but, as requested, give my experience. Being tender at first, I sow it alone, and on plowed ground, and only roll it in. BENJ. WILLARD.

LAND TITLES IN CALIFORNIA.—As illustrative of the deplorable uncertainty of land titles in California, Mr. Greeley says, in one of his letters,

"I met to-day an intelligent farmer who has had three different farms in this State, and has lost them successively by adjudications adverse to his title." And, in speaking of the privileges of miners, he adds: "To dig up a man's fenced garden, or dig down his house, in quest of gold, is the legal right of any miner," subject, of course, to payment of damages, if the roving miner should prove responsible.

*For the New England Farmer.*

#### RECLAIMING SALT MARSHES.

MR. EDITOR:—I have been looking into your *Farmer* for the last three years to see something touching the marine meadows that line the shores of New England. They have received very little attention, judging from the agricultural papers, and the reports of the State and county societies. Though salt marsh was successfully reclaimed a hundred years ago by Rev. JARED ELLIOT, of Killingworth, Ct., and fine crops of clover and herds grass produced, I do not now know of half a dozen instances where the improvement has been made.

From the little experience and observation I have had of these lands, I am persuaded that they are much the best grass lands in the country, and that no improvement upon a shore farm will pay so well as the reclaiming of these wastes. There are thousands, yes, millions of acres, of these marshes lying all along our sea-board, that can be economically reclaimed. They now produce a variety of marine grasses that barely pay the expense of cutting. Cattle eat a little of the hay, by way of relish, but do not thrive upon it. The best use it can be put to, is bedding and manure making. For the purpose of calling the attention of your readers along the seaboard to these unprized lands, I wish to make a brief statement of a little operation, that has come under my own observation.

The reclaimed marsh lies within the limits of Stonington borough, and just inside of the Providence and Stonington Railroad. It embraces about nine acres, one of which is now occupied by the Stonington and New London Railroad, leaving about eight acres of the improved land. A small stream runs through it in the winter. In the fall of 1855, a side gate was put into the culvert, at the railroad embankment, through which this stream empties into the sea. This culvert was the only outlet, and the gate completely controlled the access of the sea-water. As the culvert was made of stone, and the passage was only about four feet in width and depth, the expense of stopping the sea-water was small, not exceeding five dollars. The old ditches around the edge of the marsh were cleared out, and some new ditches were made, cutting off all the fresh water that came in from the adjoining uplands. The marsh could only be drained about eighteen inches, owing to the stone bottom of the culvert, and the small rise and fall of the tide at this place.

The first summer after the tide gate was put in, nothing was done with the land, except to mow it, and watch the change in the vegetation. It had been the custom of the former owners of the marsh, to get about two loads of salt hay on the nine acres, not enough to pay for mowing. The

first season after the improvement, the hay was more than doubled, and the quality was very much improved. It was also observed that dandelions, dock, and other upland plants, had started in many places. It was inferred that grasses would grow where weeds did, and in the fall of 1856 and the spring of '57 clover, herds grass and red-top seeds were sown on the greater part of the marsh. Some of it was sown upon the snow. Nothing was done to the seed, by way of covering; most of it took well, and pure herds grass, three feet high, was cut in July from seed sown about three months before.

Seeing that the land was disposed to make so good returns, for every thing that was done for it, the new owner spread various kinds of soil upon the surface, to help the growth of the grass another season. Garden soil, gravel, yellow loam, ditch mud and compost from the yard, were spread on in various places. The poorest grass was upon that part that had no dressing, but this yielded not far from a ton to the acre. That dressed with gravel yielded better, that with yellow loam better still, that with garden soil better yet, and that dressed with ditch mud was about equal to that covered with compost.

A part of it, designed for pasture, was sowed with a mixture of white and red clover and herds grass seeds. It was also dressed about half with garden soil, and half with ditch mud. This acre and a half has pastured two cows five months the past season. It would have yielded at least four tons of good hay. From the rest of the marsh about thirteen tons of good hay were cut, a part of which was sold, in the field, for twelve dollars a ton. Had the whole been kept in meadow, and the hay sold, it would have come to over two hundred dollars, or one hundred and fifty dollars clear of all expense.

In the course of the improvement over two hundred cords of muck have been taken from the ditches, a part of which has been sold at a dollar a cord, and the rest used upon the adjacent upland. It is estimated that this muck has more than paid for all the expense of ditching, and top-dressing, and grass seed. The land is now worth three hundred dollars an acre, and will pay seven per cent. on that sum as long as it is taken care of.

From this statement it will be seen, that there is no more inviting field for improvement than these marshes. The chief expense will be in the embankment; but many of these marshes are situated along the banks of creeks, presenting a narrow border to the sea, so that every rod of dyking would protect an acre of land. These marshes do not now, as a rule, pay the interest on five dollars an acre, and they can be bought from five to fifty dollars an acre. As soon as they are reclaimed, they will pay the interest on from one to two hundred dollars an acre.

What an immense addition it would be to the productive wealth of New England, if all these marine wastes were reclaimed, and made to do their duty! How long will farmers suffer them to be idle, and complain that farming does not pay?

W. CLIFT.

*Stonington, Ct., Jan. 12th, 1860.*

In England there is liberty without equality  
In France there is equality without liberty.

*For the New England Farmer.*

### IS FARMING PROFITABLE?

MR. EDITOR:—So long as men are governed by the natural inclinations of their hearts, so long as they are controlled by the love of money more than by love for their neighbor, so long will this inquiry be applied to every department of business in which men are engaged. If you offer employment to him who carries the hod; if you seek for one to enter the halls of learning; if you open the halls of science, and invite one to come in and labor there; if you point to the chair of office, and say to your friends, the public good demands of you to seek it; if you open the church door, and look for the servant of God to proclaim the news of salvation; by each and every one, the first inquiry which meets you is: Is it profitable? Will it pay? I am aware that this is no new subject for your columns, but as I am a tiller of the soil, with very limited means, I am possessed of some facts which, if brought to light, may help to stay the rush of our young men to other professions which offer them speedy returns, but less profit.

What I now propose in order to show you that farming is profitable, is to give you the history of a young man who has been under my notice for the last six years. A young man in this county, in the town of —, purchased a farm of eighty acres of land in a run down condition, in a stony, rough section. For this farm he promised to pay \$2,400, which at the time was thought by the neighbors to be all the place was worth, but being of a resolute mind, having a strong arm and willing heart, he determined to try his luck. Having been a reader of the *New England Farmer* and *Massachusetts Ploughman* for years, he did not adopt the opinions nor practice of his neighbors, but struck out a line of policy for himself, bringing to his aid all the information which could be gathered to suit his own case, both from reading and observation, so that at this time, where stood the old brush pine, stands the substantial stone wall. The rocks have many of them disappeared from the mowings, some of the wet lands have been underdrained, and the best of grasses have taken the place of the poorest. The old barn, without a cellar, has been re-modelled and enlarged, to accommodate the increase of crops, until the passer by beholds a modern barn of eighty feet in length, with a cellar under the whole. The house has also been entirely put in order, shade trees have been set out, the yard has been ornamented by setting the larch, fir, cherry, crab-apple and various kinds of roses. Flowers, also, have come in for a large piece of ground, and have served to make the ornamental department complete. He would never keep any but the best of stock, and, as might be expected, he obtained a large supply from his dairy, which was the great secret of his success.

At the time he bought his farm, he was not worth one dollar in the world; he had to run in debt for both farm and stock, farming tools, house furniture, and every item of personal property which he possessed. This will be sufficient for you to see that if to-day he is worth anything, he must have made farming profitable. Now I will give you the result of his labors. He has recently sold his farm to one of his old neighbors for \$700 more than he paid for it, and he is now able to tell how he stands in the world. To my own

personal knowledge, he is to-day worth hundreds of dollars in cash. If you ask him if farming is profitable, he will at once reply, Yes.

As might be expected, while he was farming with so much intelligence, and enterprise, he has been one of the foremost in all matters of town, society and district. In a great measure by his efforts, has an agricultural society been established in this town, and none have been more ready to give both time and money to help forward any enterprise which promised to be of benefit to the community around him.

Now, Mr. Editor, I would like to know in what business could that young man have engaged, without means, which would have given him so good a living, so much comfort, so much pleasure, so much health, and at the same time make to him so good a return for his labor? In closing, let me say that I believe no business, if conducted with intelligence, is more profitable than farming. And I would say to all young men who have been brought up on a farm, qualify yourselves for your business, and by all means stick to farming. Strive to be a farmer in the fullest sense of that word, by improving your land, and increasing your crops, and not be an exhauster of the soil.

PROFIT.

*For the New England Farmer.*

### THE WEATHER OF 1859.

MR. EDITOR:—I herewith present a few remarks upon the weather of the *winter months* of 1859, which have not been before treated upon in the *Farmer*, and which complete my history of the weather of 1859, at least that portion I choose to offer the public. Though the other months have been commented upon at some length by me on pages 359 and 484 of the last volume of the monthly *Farmer*, it may be well to briefly recall the leading features of each month; while I annex tables showing the mean temperature, days of wind from various quarters, storms, clear and cloudy days, &c., for each month and for the year.

*January*, taken together, was not a severe winter month, but was quite peculiar, and strongly marked by an almost unprecedented storm of snow—nearly two feet falling between ten, P. M., on the 3d and three, P. M., on the 4th, which, drifting badly, rendered the roads generally impassable till broken out with heavy teams and shovels—and by a term of cold that has no parallel on the local records of this region. The only recent time that fairly enters into competition with it was in January, 1857, when the mercury continued below zero at one time for *forty-three* consecutive hours—from six, P. M., on the 22d, to one, P. M., on the 24th,—while the mercury was below zero in January, 1859, for *sixty* hours in succession, or for *two days and a half*, covering the 10th and 11th; and the lowest point in both cases was 26° below zero. On Monday, the 10th, the temperature was 8° below zero at sunrise, or at seven o'clock, and the cold gradually increasing, was 11° below at eight; 14° below at quarter past nine; at ten, 13° below; at twelve M., 11° below; at three, P. M., 10° below; at 4½, P. M., 12° below; and at ten, P. M., 20° below! and on the following morning 26° below, while a thermometer half a mile from mine indicated 30° below! Added to this



was a strong, piercing wind from the north, which greatly increased the apparent intensity of the cold, and rendered travelling wholly unsafe, and accounts of frozen limbs and even death by freezing were not unfrequently reported; yet the sky was clear and the sun bright throughout nearly the whole day. The mean temperature of the 10th was 12.67° below zero, (8° below zero being the highest point of the day!) and of the following day the 11th, 11.5° below; the nearest recorded approaches to this being 9.5° below on the 23d of January, 1857, and 4.35° below on the 18th of the same month and year.

The general character of the remainder of the month was quite mild, and the mean temperature of the whole month was 24.48°. Excluding five days commencing with the 8th, the temperature of the month would be 29.19°, or only about three degrees below the freezing point. The highest temperature of the month was 44° above zero, and the lowest 26° below zero, giving the unusual range of 70° for one month. The warmest day was the 6th, with a mean temperature of 35.83° above zero, and the coldest was the 10th, with a mean temperature of 12.67° below zero—a difference of 48.5° between the mean temperatures of two days in one month, and even but four days apart.

A very large amount of water was deposited in the rain and snow of the month, three heavy storms of rain occurring, and the ground was covered with a thick stratum of ice, so that the sleighing was good, though but very little snow fell after the heavy storm in the fore part of the month. There was much cloudy and disagreeable weather, and though there were some fine days, the unpleasant elements predominated; and by consulting the annexed tables the amount of cloudiness may be ascertained, as well as the number of days of wind from the several quarters from which it came.

*February* was much milder than that month usually is, but the sleighing was tolerably good throughout the month, the ground being covered with a thick layer of ice, in consequence of the frequent rainstorms, but not a large quantity of snow fell. Cloudiness was a characteristic of the weather, and storms of snow or rain were very frequent, four of the former occurring, in which fell fourteen inches of snow, and five of the latter, averaging a storm for every third day; and there were but four clear days in the whole month. The mean temperature of the month being 29.44°, was but little below the freezing point; and the range of the temperature was quite uniform, one week varying but little from the others. The highest temperature was 53°, on the 23d, and the lowest was 4°, on the 27th. The coldest day was the 12th, having a mean temperature of 17°; the warmest was the 23d, with a mean temperature of 40°.

*December* came in with two remarkably warm, lowery, Indian summer-like days, the thermometer standing at 66° in the shade, (in which all observations are given,) on the 2d, or three degrees higher than on the 4th of July, while the mean temperature of the day was 54°; the 2d of December, 1859, being but half a degree colder than the 4th of July of the same year! a pretty fair specimen of the eccentricity of the year 1859, in a meteorological point of view. The weather became cold, however, on the 3d, and the remain-

der of the month was rather colder than the average of winter months. Towards the close of the month the weather was even remarkably cold, the mean temperature of the 28th being 5.67° below zero, while the temperature at sunrise on the 29th was 18° below zero; and this is reported to be the coldest December weather that has occurred in this region in the last ten years. On the 9th the temperature was one degree below zero, it having fallen 54° during the thirty-six hours preceding; and during the month the temperature was five times below zero at sunrise, as follows: on the 9th, 1° below; on the 16th, 1° below; on the 28th, 12° below; on the 29th, 18° below; and on the 31st, 8° below. The mean temperature of the month was 22.11°. The highest temperature was 66° above zero, and the lowest was 18° below zero, giving the remarkably great range of temperature for one month of 84°.

It was a characteristic of the storms that they commenced with snow or sleet, and almost invariably terminated with a fall of rain. The sleighing, however, was fair throughout nearly the whole month. There were eight storms, depositing twenty inches of snow and sleet, and with the rain equalling 3.94 inches of water. For further particulars, respecting the wind, &c., reference may be had to the tables, in the two months above.

The leading features of *March* were its mildness and the early opening of spring—the snow generally disappearing by the 10th, and the ground was quite free from frost as early as the 20th—although it was marked by very heavy and disastrous freshets in the valley of the Connecticut River.

The month of *April* was quite fine, and tortured by no severe extremes, the season preserving its forwardness with but slight interruptions, the pastures being green at the close of the month, at which time many trees were expanding their leaves.

And through *May*, even, the development of vegetation was rather more rapid than usual, cherry trees being in full blossom on the 9th, and apple trees on the 18th—a sufficient encomium upon the season.

But clouds, and rain, and cold nights, were prominent features in the weather of *June*, frosts injuring the newly planted crops of corn and potatoes, and severely nipping vegetation in general. Indeed, the weather was too cold for vegetation to advance but slowly, and the superabundance of moisture was hardly a less evil to the farmer.

*July* was a very fine month, agreeable alike to hay-makers and the growing crops.

*August* was much more doubtful for the farmer, the fore part being very warm, while the last part was unusually cool, and there was a scanty supply of rain, and though vegetation suffered much from drought in some localities, it escaped its effects generally here. Light frosts near its close severely threatened it, yet it escaped "with a shiver," as one has remarked.

*September* was quite cool throughout, and very dry during the first half, while the frosts about the middle injured the corn crop, so backward this year, very severely.

*October* was even still more disagreeable, if not unfavorable, with its cold clouds and rough winds, the weather better befitting the month of Novem-

ber than October; while *November* was as remarkable for its mildness and agreeability; yet there was a scanty supply of water in this month.

In short, the year in some respects was quite unfavorable for the farmer, the corn crop giving a light yield of sound grain, though other crops came in as well as usual, except, perhaps, fruits. There was frost in some localities in every month, and only sixty-six days passed in succession without frost here.

If the reader would learn further particulars in regard to the weather of this region the present year, than can be obtained from the above, and the following table, a somewhat full account of it may be found in previous numbers of the *Farmer*.

The following table shows the highest and lowest temperature of each month, and the mean temperature, and also the mean temperature at sunrise, noon, and sunset. The dash, (thus, -26°) indicates below zero.

TABLE OF TEMPERATURE, 1859.

	Min. Temp.	Max. Temp.	Mean Temp.	Mean at Sunrise.	Mean at Noon.	Mean at Sunset.
January,	-36°	44°	24.48°	19.55°	28.16°	25.90°
February,	4	53	29.44	23.64	33.82	29.71
March,	4	64	37.14	34.00	41.71	39.51
April,	27	71	42.94	38.40	47.73	46.05
May,	35	86	57.31	47.20	65.52	59.49
June,	34	92	62.95	47.47	63.53	61.90
July,	44	96	67.53	57.71	75.51	65.68
August,	40	86	66.31	57.78	73.55	69.13
September,	34	75	57.15	48.43	63.57	58.87
October,	23	75	45.68	38.35	51.09	47.61
November,	23	66	41.50	35.27	45.03	42.70
December,	-18	66	22.11	18.94	27.07	23.55
Year,	-36	96	46.19	38.89	51.82	47.43

The table next following gives the number of days of wind from the various quarters from which it has blown during each month the past year. Under the head of *calm* are placed those days in which the wind was very light and unsteady, and the currents constantly changing, as well as when a breeze was imperceptible. It also shows the number of Auroras and halos.

TABLE SHOWING THE NUMBER OF DAYS OF WIND FROM DIFFERENT QUARTERS IN 1859.

	N. N.	N.	N. E.	E.	S. E.	S.	S. W.	Calm.	Aurora.	Halos.
January,	10	3	5		14	94	2	3	3	3
February,	5	2	7	1	1	7	5	3	3	3
March,	10	1	5	24	4	84		2	6	6
April,	15	2	7	2	1	84		3		3
May,	11		2		8	7	3	2		2
June,	2		0		6	9	4	4		4
July,	114		5	1	2	74	4	4		4
August,	8		8	2	6	7		3	2	2
September,	11		6		1	9	3	5	3	3
October,	15	1	3		1	10	1	5	2	2
November,	10	14	3	14	6	6	2	1	3	3
December,	10	5	6		4	2	4	5		5
Total,	1184	151	66	10	414	834	28	22	36	36
Average,	9.5-6	1.7-24	54	5-6	3.11-24	74	24	1.5-6	3	3

The next table gives the number of days that were clear, cloudy, tolerably clear, &c., together with the number of storms of rain and snow, and amount. Under the head of *tolerably clear* are placed those days in which the sun shone most of the time, though clouds abounded, and under the head of *quite cloudy*, those in which clouds predominated, though there were several hours of sun.

TABLE OF STORMS, CLEAR AND CLOUDY DAYS, &amp;c., 1859.

	Clear.	Cloudy.	Tolerably Clear.	Quite Clear.	Falls of Snow.	Rain.
	No.	Inches.	No.	Inches.	No.	Inches.
January,	9	14	5	3	6	20
February,	4	11	7	6	5	13
March,	4	12	8	7	1	5
April,	6	7	9	8	Squalls, sleet.	6
May,	12	9	6	6		11
June,	5	8	10	7		15
July,	10	5	11	6		10
August,	14	3	7	7		11
September,	7	4	11	8		11
October,	8	6	10	7	A few flakes.	6
November,	7	6	9	8	3	2
December,	10	12	4	4	8	20
Total,	99	96	96	75	23	60
Average,	84	8	8	64		84

There were also *seventeen thunder-showers*, as follows: 1 in May, 6 in June, 5 in July, 3 in August, 1 in October, and 1 in November.

Springfield, Mass., Jan. 2, 1860. J. A. A.

\* The statistics in regard to the amount of rain, are taken from the record kept at the U. S. Armory in this city, by S. ADAMS, Esq., clerk of the Armory, to whose kindness I am indebted for their insertion here.

#### A SILVER PITCHER GIVEN TO A FARMER!

Swords, gold-headed canes, plate and other testimonials of gratitude and respect, have been presented to "public benefactors," from time immemorial—for aught we know; at any rate, we have often read and heard of such things. But we find in the *New York Tribune* an account of a presentation, that strikes us as something new, so far as the character of the services rewarded are concerned. A silver pitcher and two goblets have been presented to a farmer, in recognition of his services as a farmer.

Many years ago, a poor young man bought a farm near Seneca Lake, New York. Much of the soil was a cold, heavy clay. As fast as he could, he drained off the water, put in the manure, and demonstrated, by example, that farming may be made profitable. In 1835 he imported patterns of drain tile, and commenced his experiments in this line of improvement with tiles made by the slow process of hand labor. Machinery was soon used in their manufacture, and in 1851 he had laid sixteen miles of tile drains. Finding that the more he drained, and the more he manured, the richer he grew, he ventured to recommend his course to other farmers, and became a frequent contributor to the agricultural journals of New York. In one of his articles, written the 17th of December last, and published in the *Rural New-Yorker*, in reply to some strictures on his system of "high feeding," he says:

"I will state that I can with more certainty calculate on three tons of hay per acre, now, than I could on one, thirty-six years ago, and I can safely calculate on one acre in pasture feeding more stock, and much better, than three would have



done at that time, while I can almost always make one-half more grain of any kind than I did then—of oats or corn far more than double. High feeding and high manuring did all this."

By affixing his own signature to these publications, the name of JOHN JOHNSTON has long been familiar to the readers of agricultural papers, and he is sometimes called the "Great Tile Drainer," of New York.

The presentation of a service of plate to such a man, by a number of the most respectable citizens of a great State, we regard as an event of interest to farmers generally, as indicating a willingness on the part of the public to honor those who introduce improvements in the cultivation of the soil, and to admit them to rank among the benefactors of the race.

The *Tribune* gives the following description of the articles presented to Mr. Johnston:

"The testimonial consists of a massive silver pitcher and two goblets, on all of which are engraved and embossed appropriate agricultural emblems. On one shield of the pitcher is represented a reaping field as it appears in our day, on another a mowing machine at work, and the third bears the following inscription:

Presented to JOHN JOHNSTON, in recognition of his services to the Agriculture of New York, by his fellow-citizens.  
JOHN A. KING, and 19 others.

The goblets bear the representation of men laying tiles for drains, a ditch-digging machine, tile machine, and all manner of small tools used in 'the stupid burial of crockery'—as an English lord was pleased to term tile draining a few years ago."

*For the New England Farmer.*

#### MODES OF TAXING PROPERTY.

MR. EDITOR:—Your correspondent R. M., asks your interposition as a legislator, to modify the law, as to the assessment of taxes. I do not understand him to say that property should not be taxed equally and proportionately wherever it is found. It would certainly be difficult to legislate that one thousand dollars should be taxed in the possession of one man more or less than in the possession of another. Nor would the inequality be relieved by shifting the burden of taxation from the mortgager to the mortgagee, because all this would be guarded against by the mortgagee when he received his mortgage.

If a provision could be made for a full disclosure of property by those who hold it, under a penalty of a forfeiture of the property, if not disclosed for the purposes of taxation, this would be as effectual a mode of bringing it out as could be adopted by law. I am of the opinion that the poor man's homestead not exceeding one thousand dollars in value should be exempted from taxation, as well as from debt. This would greatly lessen the number of persons liable to be taxed, and leave the burden upon the holders of property, who are the persons mainly benefited by taxes being paid.

January, 1860.

*For the New England Farmer.*

#### DITCHING PLOWS—TILE DRAINS.

MR. EDITOR:—In an article on drainage published in the *N. E. Farmer* some time since, I find the following remark: "Care should be taken not to move with loaded teams on the surface of the field so as to jar the tile from their places." Now I wish to inquire if this is so? Can it be that tile are so easily displaced as this? I should think that perhaps they might be disturbed in this way when laid in swamps, but I had supposed upon uplands it was not needful to use such precautions. I have never yet used tile, but have recently laid a considerable amount of stone drains, and having found these to be rather costly, I have been thinking of giving tiles a trial.

Have any of the new ditching plows yet been used in this vicinity? I mean such as are described in the *Register of Rural Affairs* for 1860. Can they be obtained in Boston? if so, where? and at what price? and which patterns?

One great reason why drain tile are not more used is, because the makers charge an exorbitant profit upon them; they are sold in England for about one-half the price which is demanded here. If some one in this vicinity would go into the manufacture of tiles, and sell them at a moderate price, he might do well for himself, and greatly increase the use of tiles.

W. D.

Jan. 3, 1860.

REMARKS.—If tiles are well laid as low as they ought to be, viz.: between three and four feet below the surface, we cannot believe that there is danger of displacing them by passing over them with loaded teams.

We are not aware that the ditching plows are either made, sold or used in this vicinity. Drain tile is sold at too high a price, but we hope the multiplication of machines will reduce it. A simple machine will soon be furnished at a very low price, and one that can be put in use upon any farm where clay is found, and the tile made by the most inexperienced persons. So we are told.

NEW HAMPSHIRE STATE AGRICULTURAL SOCIETY.—At a recent meeting of the above society, the following persons were chosen officers for the ensuing year:

President—Wm. F. Estes, Dover.

Secretary—Aaron Young, Dover.

Treasurer—Frederic Smyth, Manchester.

Directors—Dana Woodman, North Hampton; Nathaniel White, Concord; Alfred Hort, Durham; John Preston, New Ipswich; John S. Walker, Claremont.

OHIO FARMER.—This paper enters upon the new year with some typographical improvements. It is a sterling journal,—its editor having a good heart as well as an intelligent head. He is one of the BROWNS, surnamed THOMAS, and does his work up B—in the most thorough manner. Long life and prosperity to himself and his paper.

## TALL CROWFOOT, OR BUTTERCUPS.

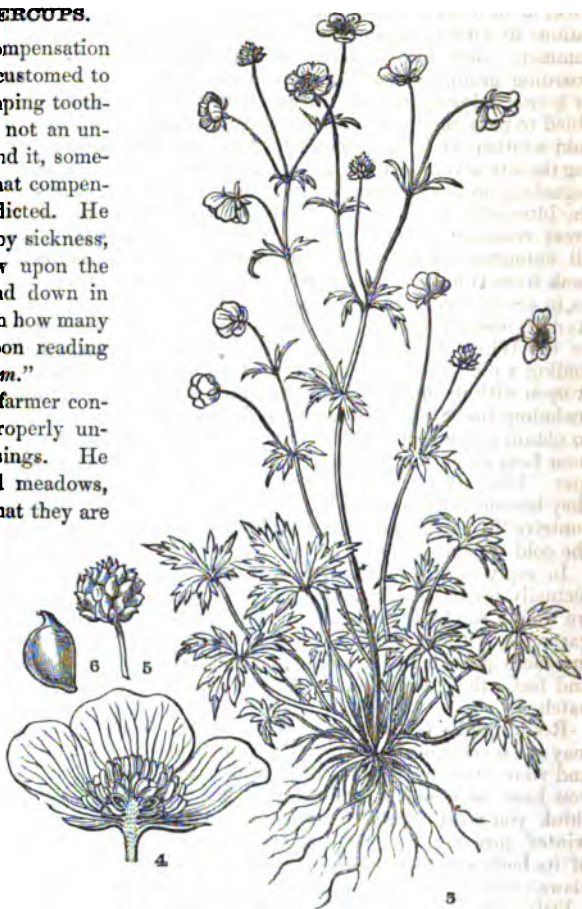
Philosophers say there is some compensation for everything in life that we are accustomed to look upon as an ill. That even a jumping toothache, or a nip of the sciatic nerve, is not an unqualified evil,—that around it or behind it, somewhere, there lie crumbs of comfort that compensate in some measure for the pangs inflicted. He who has been cut off from the world by sickness, and daily looks out from his window upon the moving multitudes as they go up and down in their pursuits, will be surprised to learn how many compensations for him there are, upon reading Bulwer's "*Consolations in a Sick Room.*"

So it is in another kingdom. The farmer considers many things as evils, which, properly understood, may be found to be blessings. He looks out upon his broad fields and meadows, covered with buttercups, and sighs that they are not all sweet clover, purple-blooming herds grass or silky red-top, forgetting how his children gather the cups, or chase the butterflies among the despised but showy plants—or how lovingly his city visitors look upon the gay scene, and listen to the song of the bob-o-links that rear their young and sing to each other amidst this world of flowers.

This is an introduced weed; it is common in New England and in New York State. There is another species, growing about one foot high, while this which we have illustrated grows two feet high. Both species are popularly known as buttercups, and in some localities are so abundant in meadows, as to appear at a distance like an unbroken sheet of golden yellow. On account of their acid juice, cattle do not eat them in their fresh state, nor do they care much for them when dried. About a dozen other species are to be found in the woodland and meadows, and a few aquatic ones in streams and ponds. It is a rank and hardy plant, has become quite a nuisance to farmers, and ought to be eradicated upon its first appearance in their grounds. It is said that beggars in Europe use it for the sake of making their faces red, or exciting ulcers, and thereby exciting sympathy.

The reader will find both species illustrated and more fully explained in *Darlington's Weeds and Useful Plants*.

Fig. 3, in the illustration, shows the whole plant. Fig. 4, is an enlarged flower, divided, to show the distinct parts. Fig. 5, is a head of seed. Fig. 6, the seed or fruit.



For the New England Farmer.

## OUR WINTER RESIDENT BIRDS.

BY S. P. FOWLER.

Upon noticing a flock of snow birds, gathering their scanty subsistence, during a severe snow-storm in the depth of winter, the thought arises in the mind, how do these beautiful little specimens of ornithology get a living? and why do they not all perish? Upon looking over our wintry landscape, and observing the Gos Hawk, we are led to inquire why this vigorous bird does not use its wings for a few hours, in reaching a more temperate climate, instead of beating over our frozen fields and meadows, striving to capture an unsuspecting Tree Sparrow, or seize a careless field mouse. In regard to the first question, how our winter resident birds obtain their food, we would remark, that the Finches feed principally upon the seeds of weeds and grass, and find an abundant supply. The Partridges and Grouse feed in winter upon seeds, berries, and the larva of insects, when they can be obtained; and when these fail, in consequence of deep snows, they resort to various trees to obtain their buds, carefully selecting those that give promise of fruit. Woodpeckers, Nuthatches, Creepers and Titmice, that feed principally upon the larva of insects, which perforate trees, or lie concealed under their

☞ A family broil spoils the best broth.

bark, or in other retreats, can carry on these operations in winter, in procuring food, as well as in summer. Jays have a habit of collecting and hoarding grain, nuts and acorns in hollow trees, or between layers of bark, by which they are enabled to pass the winter comfortably. Crows, in cold weather, visit the seacoast for food, and during the late severe weather, great numbers of these sagacious birds were seen winging their way from the interior to the ocean for supplies, which this great reservoir of food is ever ready to furnish all animated nature. The splendid Pine Grosbeak from Hudson's Bay, which sometimes visits us in severe winters like the present, never loses its daily food, by finding its nuts too hard to crack, or the White Winged Cross Bill its dinner, by finding a pine cone so close, that it cannot pick it open with its crooked bill. The birds of prey, including the Shrikes, sometimes find it difficult to obtain a living in winter, and resort to low and poor fare, which they would disdain to eat in summer. Like all rapacious animals when hungry, they become bold, and exhibit great temerity, and contrive by rapine and plunder to live through the cold season.

In reply to the question, how do our birds effectually resist the extreme cold of our winters, we would say by their being clad in new, clean garments, without rents or seams, and in many instances provided with a covering for their legs and feet, that require no weekly darning or a patch.

Reader, did you ever see a White Owl? You may see several in some winters, if you are abroad, and your eyes are open to objects of nature. If you have seen and examined this fine bird, we think you must admit, that it possesses a perfect winter garment; you noticed that not a particle of its body was to be seen, except the ends of its claws and bill; you may however have discovered a little, thin spot under each wing; this seeming defect is obviated by the bird's pressing more closely its pinions to its body. These bare spots under the wings of all birds, are necessary. In a summer's day, oppressed with heat, we strip off our clothes; our bird cannot divest itself of its warm coat, when suffering from heat, but it can effectually cool itself by raising its wings, and admitting the fanning breeze. Like the Owls, nearly all the species of Grouse inhabiting cold climates, are feathered on their legs and toes. Still, it is a wonder with many, how our small birds can keep warmth in their little bodies, during a cold winter's night. But they are furnished with a warm coat of feathers, which in some birds are of great length; as, for instance, the Chickadee, which, when plucked, only discovers to us an atom of ornithology, but its little heart beats more rapidly, and its blood flows more quickly, than in birds of larger organization. Many birds resort at nightfall to swamps in the forest, and seek shelter in an evergreen tree, where, nestling on its branch with their heads under their wings, or buried in feathers on their breasts, they are rocked to sleep by the sweet lullaby of the wind, murmuring through the pine, and thus spend the long and dreary night. Quails, living together in families, upon the approach of night, provide a shelter for themselves during a snow storm, by seeking some rising ground swept by the wind, and beneath a bush or bramble form a close circle,

with their heads outwards, and by their mutual warmth, resist the effect of the cold.

Thus we see a benevolent Creator has provided our winter birds with clothing sufficient to enable them to withstand the most inclement weather, and with instincts to enable them to procure their food, and to prompt them to place themselves in the best positions to secure the greatest amount of comfort and safety. Those that are gregarious in their habits, are lively and social, and there is no better exhibition of winter pastime, than a flock of Snow Buntings in a snow-storm. Skating and coasting by a bevy of boys and girls make some approach to it; the youth in their sports are the most noisy, but the frequent call, and low, suppressed, tender twitter of the birds, evince the more quiet joy. But, notwithstanding the careful provisions of nature, birds perish in considerable numbers during a severe winter. These are probably old birds, some of whom may perhaps have lost their power of moulting, and are compelled to wear their summer dresses, or young birds not in full plumage. Mr. Audubon speaks of killing a female White-headed Eagle, which, judging from its worn and faded plumage, he supposed had lost the power of casting its feathers, in consequence of its age.

In answer to the question, why our winter birds do not seek a warmer climate, we would reply, it involves the difficult subject of migration, and would occupy more time and space than can now be afforded.

*Danversport, Jan. 10, 1860.*

*For the New England Farmer.*

#### "BUTTER IN WINTER."

Thus is headed an inquiry in your valued journal, Messrs. Editors, over date of November 27, from a correspondent at New Bedford. Allow me to aid him all in my power. From a most notable housewife in this vicinity, I obtain this teaching. After milking and straining, at once place the milk obtained in a clean kettle, and scald it well over the fire. Do not bring it to a boil, but simply scald it gradually, but well. Place it away for skimming, in a room of moderate temperature. When ready to churn, warm it by setting the vessel that holds it, (if earthen,) in hot water. Otherwise, bring the cream to a point that holds no chill. Rinse the churn in boiling water before using. Drain out, and then "up and at it." In a short time the result will be reached. I must remark this process never has failed, from milkings not very heavily oppressed with cream, the food of the cows being ordinary meadow hay, with no other change whatsoever. To obtain a bright or golden color, (so difficult to be had in winter on any feed,) take a few orange carrots, scrape them fine, immerse, and soak in blood-warm water till the color be fully extracted. A portion of this, according to color desired, may be put in the cream when churning. It is wholly harmless in character, and not so repulsive to many, as "annotto," an article doubtless well known. This process in winter, will secure the coming of butter, in less (at least not over) 30 minutes' churning in a warm room, and if coloring be used as designated, it will give it of a pure June tint.

OAK HILL.

*For the New England Farmer.*

# FARM OF NINE AND ONE-HALF ACRES.

REPLY TO INQUIRIES OF "C. L. W."

MR. EDITOR:—"C. L. W." would like my advice as to buying a farm of 9½ acres.

It is difficult to advise people that you do not know. Before advising a person, you want to know his capacity for doing the particular thing he asks advice upon. If "C. L. W." likes gardening, if he likes to weed beds and be doubled up like a jack-knife during the hot part of the days of May, June and July, weeding his beds, picking his strawberries, killing the bugs on his vines, &c.; if he can graft, bud and transplant, so that nine-tenths of what he plants will live and do well; if he loves to market small articles, such as a garden produces—if he loves busy work all the time, late and early, then he will make a good gardener.

If there is a good market near at hand for his garden produce, he may make it profitable. The apple and pear trees will not help him much the first ten years, yet they would suit me much better than the other half of his garden.

If "C. L. W." has no taste for the work himself—if the market is distant or doubtful, then my friend would want capital to carry it on, rather than to expect to make capital from it.

I am one of those farmers who believe in a good large farm. Were I a young man, and going to farming for a living, I should want from 100 to 200 acres of land. But I am not one of those that think that I could make more money from a little farm than a great one. I believe that I can pay for a farm really worth \$5000, if I had to make the money from the farm, quicker than I would from a \$1000 farm. A man wants about the same cost in building, and about as many tools, to carry on a small farm, as he does to carry on a large one. If it will not pay to hire help to farm, then you had better not farm for yourself, but work out.

The great failure of those who have large farms often is, that they do not work help enough. They do not put in the crops. A man who has ten acres plants one acre; a man with one hundred acres, should plant ten acres by the same rule.

I believe your doctrine is, Mr. Editor, that a man should not cultivate any more land than he can manure well; but I do not believe in that doctrine. I believe if a man buys a worn-out farm, as it is called, the best way is to tear up a good lot of it and get something to put on it. At first his crops may be light, but they will increase if he continues to cultivate in that way, and put the products back on the land, that is, if he spends the produce on the farm.

But I have got far away from my starting-point; it was gardening and an orchard that I started on, and not a farm. I never loved gardening, and I only raise in my garden what I want in my family. I will not weed carrots for my cattle. I prefer to raise hay, corn, wheat and oats for them.

ED. EMERSON.

Hollis, Dec. 24, 1859.

**HOW TO PAINT NEW TIN ROOFS.**—Scrape off the rosin as clean as possible, and sweep the roofs. Wash it with strong soda water, and let it

remain until a shower of rain has fallen upon it. Give it a coat of pure Venetian red, mixed with one-third boiled and two-thirds raw linseed oil; the second coat may be any color desired. The soda water dissolves the rosin remaining after scraping; and it destroys the greasy nature of the solder, and that of the new tin, so that there will be sufficient "grip" for the paint to adhere firmly. The pure Venetian red is one of the most durable paints for metallic roofs, but is often rejected on account of its color. The above mode of painting will set aside this difficulty.—*Scientific American*.

## LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The second meeting of the present series of the *Legislative Agricultural Society* was held in the Representatives' Hall at the State House on Monday evening. There was a full attendance of members and others, and the remarks of those taking part in the discussion were frequently applauded.

The meeting was called to order by HON. SIMON BROWN, Chairman of the Executive Committee, who announced HON. JOHN A. GOODWIN, of Lowell, Speaker of the House of Representatives, as Chairman of the evening.

On assuming the chair, Mr. Goodwin said that the subject for discussion was, "*What will tend to make agriculture profitable and pleasant as a pursuit?*" He did not feel himself competent to discuss the question as it ought to be discussed, as he had not had time to devote to the consideration of it on account of other public business, yet it was a subject of such vital importance to our Commonwealth that he felt it his duty to give his views on it, notwithstanding they would be necessarily somewhat rambling in their character.

He considered that the principal way in which farming might be made both profitable and pleasant, would be for agriculturists to till smaller farms, and instil more of the social element into their households. The population in the farming districts of our State is so sparse, that young people who have once been to the city become dissatisfied to remain at home, from the fact that in consequence of the great size of farms there is no sociability or amusement around home.

Mr. Goodwin then spoke of the County of Middlesex, which he considered a fair sample of the State, and said that there were 4500 farms in that county, and yet there was two-thirds of the land which was not occupied for any purpose at all; there were men in the heart of the county who obtain a living solely by hunting; even in Concord and Lincoln, the latter one of the best farming towns in the Commonwealth, there are a number of men whose living is gained in this way. This two-thirds of the waste land, the speaker said, was

not devoted to profitable wood raising, as even to raise wood, he considered, was profitable at the prices now obtained for it. He recommended that to make our farming population more dense we should have small farms and more of them, and this would be the first great step in making agriculture both profitable and pleasant.

The honorable gentleman said that, if only half the waste land in Middlesex County were put to use, it would make 1000 farms of 56 acres each, and with proper attention this would be as productive land as any in the county. There is great uneasiness, said the speaker, on the part of farmers' boys to get away from home, as their secluded position there did not give them a chance for that social improvement the human mind naturally seeks.

In alluding to his advocacy of contracting the length and breadth of farms, Mr. Goodwin urged that the depth should be extended by deep plowing, which, in this section, was too much neglected, the average depth of plowing not exceeding five inches. This would hit the right remedy, and be undoubtedly profitable, as notwithstanding many other doctrines which had been advocated had been "ran into the ground," it was not so in agriculture.

Mr. Goodwin said there were lots of land where deep plowing would not do, but he thought that in the large majority of farms the plowing was not more than half deep enough. He then spoke of manure, and said that the making of more of this was essential to profitable farming, yet our farmers mostly let the road washings, rotten wood, decayed leaves, soap-suds, and numerous other fertilizers, go to waste at their very doors, for the want of a knowledge of their value. It is not in actual barn manure, said the speaker, that the farmer has to use economy in collecting, but in all those fertilizers that are so numerous around a farm-house.

The speaker illustrated his argument in favor of deep plowing by speaking of a man in Haverhill, who, by turning up the ground from a depth of 15 inches, and economy in his collecting manure, and properly mixing it, had raised his corn produce in one year from 40 to 90 bushels to the acre. The common expression, said he, when you attempt to explain the importance of attention to the collection of fertilizers to farmers, is, "I can not afford to bother," when this very bother not only is a sure source of profit, but with that a pleasure. He did not believe in the great mass of chemical compounds brought into the market as fertilizers were of any good, and he was inclined to pronounce many of them humbugs.

Pigs, said Mr. Goodwin, should be the hardest workers on the farm, and his father differed with the majority of farmers in thinking the pork a secondary consideration to the amount of work a

pig would do in working up the manure heap and making compost. Our farmers, said he, devote too much land to pasturage, which, from want of care, was poor and unprofitable; and from this he argued that smaller farms, more deeply worked and well manured, would be the most profitable to the owner. Mr. Goodwin said that in his opinion there was nothing better to make farming more pleasant than good gardens, and he spoke of the attention that was paid to this in Concord, Wayland and Danvers, and said nothing paid better or saved so much in household expenses. An agricultural missionary, said the speaker, can not find a better text to preach upon than family gardens.

Mr. Goodwin closed his remarks by saying that our village schools would be far better if farming was better managed, and he thought this bar to obtaining a better education was one of the principal reasons for this longing on the part of young people to leave home.

SIMON BROWN, editor of the *New England Farmer*, was then called on to speak. He said he felt encouraged by the interest that was manifested in regard to the subject under discussion. Two things operated as a hindrance to good and pleasant farming; one was, that agriculture was looked on as an *unprofitable* employment, and the other, that it was not so *respectable* as other occupations. He had travelled extensively among the farmers of this State, and he knew that there was no better plan to find this out than by conference with women, and in conversing with them it will be found that nearly nine-tenths of the girls would prefer a man for a husband in almost any other business than that of farming.

The question as to how farming may be made profitable and pleasant is not merely of importance to us, but to those who are to succeed us; and in considering the matter, our first object is to secure happiness, and then profit. The man, said Mr. Brown, is the most happy who has a farm of fifty acres, paid for, with a house and necessary farm buildings on it, and with "a little more than will make both ends meet." He can go abroad, and know when he returns that he has a home with all its comforts, that he has a roof to shelter him, a comfortable bed to lay down on, and a table bountifully provided, around which his wife and children gather with real pleasure; he is near a well populated village, and has a permanent home and permanent employment, thus making him contented and happy. There are few farmers of this class who do not lay by money, and who have not an opportunity to educate a son at college and thus supply the cities with men who rarely fail to become prominent in some of the professions. He contended that there would not be found more than one farmer who became a

bankrupt to an hundred in any other occupation, and this fact alone was the strongest argument as to the profits of farming.

In conclusion, Mr. Brown advocated the support of farmers' clubs, and other gatherings of a similar description, to infuse new life and vigor into the family, and thus to make farming both profitable and pleasant.

Mr. WETHERELL was the next speaker, and he took the same view of the subject as did Mr. Gardner, of Swansey, at the last meeting, and argued that farms were like factories, if left idle neither would pay. He said that the argument in favor of deep plowing would not apply to the majority of farms in the State, as the land would not bear it. He urged that a young man must love his business, and then must be industrious, and study to make it pay.

Mr. GARDNER, of Swansey, differed from Mr. Brown in relation to the matrimonial inclinations of the ladies, and argued that every kind of business, properly conducted, should be considered honorable. One great trouble in driving sons of farmers from home is to be found in the custom which prevails among parents of telling their children how hard a farmer's life is, and again in not teaching young men the value of money, and the importance of saving it. Again, the speaker said, there is great fault in not selecting good seeds, and not taking the proper time to gather them. He spoke of farmers in his section who had planted corn which probably was not perfectly ripe when it was put in the crib, and consequently, they had to plant again, thus incurring unnecessary expense and loss of time. He spoke at length on the importance of paying more attention to this matter.

Mr. PROCTOR, of Danvers, considered that whatever was profitable was pleasant, and those who labor have this in view. Profit, said he, should not be the only aim of the Society, but it should be also to make young men good citizens, and he felt proud to say that in no class were they so numerous as among farmers.

He said that there were 30 neighbors of his who had on an average not more than 20 acres each, who cleared, over and above expenses, from \$300 to \$500 per year, and these were among the best citizens in the place. This profit was not made by shallow but by thorough cultivation, by attention to manure, putting on from 5 to 10 cords to the acre, and the result being a yield of from \$50 to \$100 per acre, a year, profit. These men, said he, plow 10 inches deep, and cultivate their fields like a garden, and do not make their money by stock raising, or note shaving. In speaking of the ladies, he said he was sorry to hear there was any one so unwise as to prefer a man of another occupation as a husband, to a farmer, as, in by

far the majority of cases, the farmer in declining life was in better circumstances than any other class of men.

Hon. N. EDDY, of Oxford, said he thought we had too indiscriminate recommendation of deep plowing, as the soil would not bear it. The trouble was that our people undertake to farm too far from a market, as in the case of the sale of hay by some farmers, it will cost all the hay is worth to transport the fertilizers obtained from the proceeds of the sale. Mr. Eddy considered that the best way to make our farms generally profitable was to pay attention to the fattening of stock, bought in other States. In support of his argument, he called attention to the profits made by graziers in New York, New Jersey and Pennsylvania, on cattle bought in the West. He condemned the attention that was too much devoted to rough soils, and closed his remarks by urging farmers to keep themselves free from the hazards of speculation.

Mr. ASA SHELDON, of Wilmington, referred briefly to the discussion of the subject at the former meeting, and expressed his pleasure that the article from the pen of Mr. Pinkham had waked up our farmers. He amusingly alluded to the argument in favor of a *ten hour system* in farming, and related an anecdote of his experience in road making, which highly amused the meeting. Farming, said he, will never be either profitable or pleasant, unless it is done freely, and it is to create a love for it, that we should aim. He thought Mr. Brown had told the truth about the ladies, but he thought that if a girl had scruples about feeding poultry, making cheese and butter, and doing other household duties in a farm-house, he would advise her never to give her hand to a farmer, as, without pleasure, farming cannot be profitable.

Mr. STROUGHTON, of Gill, thought there was nothing more profitable connected with farming than stock raising, but he would say, that it should be choice stock, as this cost no more to raise than the common, and returned a very much larger profit. He had an order in his pocket, then, for two yearling Alderney heifers, to go to New Orleans, and he was to receive \$125 each, for them, delivered here. A market is what makes farming profitable, and here Congress can help us, by a favorable tariff; but to make farming profitable and pleasant, each man must figure for himself, and study his own farm, seeing what he can raise best on it, and for which he can find the best market.

Mr. BUCKMINSTER explained that he did not mean to advocate the strict application of the ten hour system to farming, but wished to have the farmer shown how he could do the work of sixteen hours in ten, by mathematical demonstration, and thus increase his profits.

Mr. R. S. FAX, of Lynn, thought education should be attended to, more than it now is in the



case of the farmer; with the best common schools in the world, the farmer's son had nothing done to fit him for following the profession of his father, while he needed more instruction than a boy destined for commercial pursuits. He advocated the introduction of works on the nature of soils, geology and botany, if no other works on similar subjects, in our common schools, and the speaker said he would go further and advocate the establishing of a high school of agriculture in every county in the State, and have young men taught until they go on farms, and then there would be no fear but they would do well. Mr. Fay said that looking on farming in a political point of view, he considered farmers who own their own land the most conservative men alive, and he would sooner leave his fortune in the custody of a farming community, enjoying such advantages as he hoped to see, than any other class. He hoped the present Legislature would take the first step to improve the means of education for the farmer, and thus commence what will eventually benefit our Commonwealth more than anything else.

It was announced that the subject for discussion at the next meeting would be, "*Fruit, and Fruit Culture*," and that Hon. MARSHALL P. WILDER was expected to preside.

On motion of Mr. Brown, the meeting then adjourned to Monday next, at 7 o'clock.

P. S. Ladies were also invited to attend.

*For the New England Farmer.*

#### THE CREEPER BREED OF SHEEP.

MR. EDITOR:—I have noticed in the *Farmer*, of late, some interesting items in relation to sheep. But there is one variety of the sheep kind which has not been mentioned, to my knowledge, in the columns of your paper. I have reference to the *crawler* (or Ancon) breed of sheep. I would like to inquire, through the *Farmer*, if they are as profitable to keep as the common sheep? What are the relative properties and qualities of them, compared with other sheep; and also, the relative productiveness in wool and lambs? Are they orderly and peaceable, with regard to fences; or, like the native, "long legged sheep," will they leave the pasture, at any moment "the fit comes on them," in quest of better feed? Where can this breed of sheep, pure bloods, be procured, and at what price?

If you, Mr. Editor, or any of your kind readers, having had some experience in keeping two or more breeds of sheep, and especially the *crawler breed*, will answer the above inquiries, and give any other information concerning them that may be deemed requisite, a favor will not only be conferred on me alone, but, I trust, on many others interested in the subject. SAMUEL TRUE.

*East Salisbury, Mass., Jan. 4, 1860.*

REMARKS.—We have no knowledge of this breed of sheep.

#### EXTRACTS AND REPLIES.

##### HOW TO SET THE TOPS OF FRUIT TREES.

Much useful information has been published about digging large holes, placing the roots, filling in the dirt, mulching, &c. But I write to suggest how to set the tops, or rather, how not to set them. Never set a tree leaning to the northeast, because if you do, the sun will shine hot on the upper side and kill the bark. Let me say to the man with saw and pruning-knife, let alone the limbs that shade the trunk in the hottest part of the day. Any old orchard where trees thus lean, will furnish proof that what I say is of importance. Reader, be sure to plant trees, plant and feed them well, and you shall eat the fruit of your doings, and your children will rise up and call you blessed. ELIPHALET WEEKS.

*Chatham, N. H., 1860.*

P. S. What will kill the scale or bark louse, and not injure the tree? J. ye kills a part, but not all.

REMARKS.—We use soap suds, and have no trouble from the bark louse. Try whale oil soap, rubbed in gently with a brush.

##### FRENCH PHEASANT FOWLS.

I would like to know if "P.," or any of your correspondents, have kept any of the French Pheasant fowls? I have had them about a year, and like them very much. I was told they were imported from France, a few years ago. French or American, they are the most beautiful fowls I have ever seen. They weigh thirteen pounds per pair, are white, with a bronze or golden cast, very yellow legs, small wings and tail, and most of them have a double comb. I have never seen one of them on a scaffold eight feet high, in the barn where they were kept through the winter. They are excellent layers—lay a good sized, very dark egg, and some of them are spotted like turkeys' eggs. They do not lay as young, and want to set more than the Spanish, but are easily broken up, if taken in season. They appear to be very hardy, and easy to raise. I have none to sell.

H. T. GATES.

*New Worcester, Jan. 16, 1860.*

##### PROBLEM.

Bought a farm April 1st, 1852, at \$2,350. Paid down \$200, and gave a mortgage for \$2,150, to be paid \$100 annually, with interest on the balance, till the whole is paid. How much has the sum of the payments amounted to, at annual interest on each payment, April 1st, 1860, and what will be the whole sum of the whole payments April 1st, 1873, at which time the odd \$50 is to be paid with the last instalment of \$100, provided each payment is kept at annual interest until April 1st, 1873? Will some of our friends who have given us so much light on the "Profits of Farming," (A. B., Barre, Vt., or T. J. Pinkham, for instance,) inform me whether said farm will ever be paid for from the farm, containing less than 60 acres of land, 150 miles from Boston, in the Green Mountain State? The purchaser is a younger man, with but \$395 capital at purchasing, and does not like to make a failure, unless Mr. Pinkham is very sure he can't pay for it. P. J.

*Jan., 1860.*



## HORN AIL.

I have a cow that was taken with the above disease about the middle of September last. I bored her horns and they discharged freely a number of weeks; meanwhile she seemed to do well, and gain her milk. Since then she will have spells of shrinking her milk, and will not eat, although I keep her horns open and they still discharge. If you, or any of your correspondents, can inform me what to do for her, you will confer a favor.

JEREMIAH EDDY.

*Burrillville, R. I., Jan., 1860.*

REMARKS.—The horn should never be bored without the advice of some person who understands the structure and disease of the animal. If the horn had not been bored, the offensive matter would probably have passed off through the nostrils. It is a dangerous and cruel practice to mutilate the horns. The probability is that the disease with which your cow is afflicted, is in some other organ rather than the horn.

## SCALDS AND BURNS.

When a lad of seven years, I had the misfortune to scald one of my hands. This was in the month of September. Not wishing to make much ado about it, I went into the garden to lament my calamity, and being near a bed of beets, I, without knowing or thinking of any efficiency in them, picked a leaf and spread it over the affected part of my hand. Its cooling qualities were soon apparent, and I held it on until wilted, when I applied a fresh leaf, and so on, until I think I used the third in the course of half an hour. The result was, the fire was withdrawn from my hand, and no further inconvenience attended. I mention the fact for the benefit of other little boys, should they suffer from similar accidents, not objecting to larger ones trying it, if circumstances give them an opportunity.

W. G. BACON.

*Richmond, Jan., 1860.*

## CULTURE OF TOBACCO.

Will some of your correspondents who have experience in the culture of tobacco, give me information as to the soil best adapted, kind of manure, time and manner of planting, harvesting and drying.

CHARLES W. DENHAM.

*Mattapoisett, 1st mo., 1860.*

REMARKS.—We really hope that they will not, Mr. Denham, because we think they will neither do yourself, or the public, a good service. To say nothing of what the culture of tobacco has done for Maryland and Virginia, we ask you to make careful inquiry, and learn whether it has been a blessing or a curse to our sister State, Connecticut?

## LEGHORN FOWLS.

In the *Farmer* of Dec. 31, I note an inquiry about Leghorn hens. I would state for the benefit of your correspondent that I have kept this variety of fowls, pure, having none other, and find them all I wish. The eggs are larger, they are constant layers, and thus rarely, if ever, want to

set. I have been particular to keep only pure white cocks, but many of my hens are Dominique and yellow color, which, however, I do not consider any objection, as, if anything, they are a little more hardy. Had I not given a part of my stock to my brother in the fall, I could have given your correspondent a correct account of receipt and expenditures for them.

*New Bedford, 1860.*

R. G. ANTHONY.

## COLORING MATTER FOR BUTTER.

In your paper of Jan. 14, I perceive that Mr. Everett, of Princeton, Mass., speaks of using the juice of carrots in making butter; I presume this is done to improve the color of the butter. I have known other coloring materials to be used for the same purpose. I cannot believe the use of any such material to be desirable. When cows are in good condition, generously fed, their butter will be yellow enough, without such coloring ingredients. I am surprised that any one who feels competent to instruct others in the making of butter, should think it necessary to use the juice of carrots to color it. My mother, who made as nice butter as I ever saw, some seventy pounds per week through the months of June, July and August, never used any such extra material to color the butter.

SOUTH DANVERS.

*Jan., 1860.*

## PIN WORMS IN HORSES.

Will any of your contributors give a remedy for pin worms in horses? Such a remedy would be of much value to very many of your readers.

*Exeter, N. H., Jan., 1860.*

SUBSCRIBER.

REMARKS.—Mix a gill of clean wood ashes with cut feed, and give the horse every other day one feed for a week, and watch the result. If you observe small white streaks about the anus, continue the doses a week longer.

## HOW TO GROW WATER CRESS.

Please give some directions for growing the common water cress, if not too much trouble.

MRS. S. M. GORDON.

REMARKS.—Gather a bunch of the cress and scatter it into a clear spring; the seeds will drop out and germinate, and by so doing annually will keep it perpetual.

AMERICAN STOCK JOURNAL.—As its title indicates, this publication does not discuss general agricultural topics, but is devoted exclusively to the interests of breeders and stock growers. It is edited by D. C. Linsley, and published by Saxton, Barker & Co., 25 Park Row, New York. A new volume commences with the year. Among the improvements apparent in the January number, we notice the enlargement of the Veterinary Department and the "Inaugural" of Dr. Dadd, of this city, whose services have been secured as conductor of this important department of the *Stock Journal*. He will answer any inquiries that subscribers may make in relation to the diseases of

their animals. Its pages are illustrated by views of stock, of methods of surgical operations in difficult cases, &c., and pedigrees of animals are inserted for subscribers free of charge. It is conducted with ability, and we believe with impartiality. Thirty-two double-column, large octavo pages are given monthly, for one dollar a year. We hardly needed the assurance of the publishers that this work, "commenced as an experiment, is now a success."

#### THE SOUNDS OF INDUSTRY.

I love the banging hammer,  
The whirling of the plane,  
The crashing of the busy saw,  
The creaking of the crane,  
The ringing of the anvil,  
The grating of the drill,  
The clattering of the turning-lathe,  
The whirling of the mill,  
The buzzing of the spindle,  
The rattling of the loom,  
The puffing of the engine,  
And the fan's continuous boom—  
The clipping of the tailor's shears,  
The driving of the awl,  
The sounds of busy labor—  
I love, I love them all.

I love the plowman's whistle,  
The reaper's cheerful song,  
The drover's oft repeated shout,  
As he spurs his stock along;  
The bustle of the market-man,  
As he hies him to the town,  
The hails from the tree-top,  
As the ripened fruit comes down;  
The busy sound of threshers,  
As they clean the ripened grain,  
And huskers' joke and mirth and glee,  
'Neath the moonlight on the plain;  
The kind voices of dairymen,  
The shepherd's gentle call—  
These sounds of active industry,  
I love, I love them all.

For they tell my longing spirit  
Of the earnestness of life;  
How much of all its happiness  
Comes out of toil and strife.  
Not that toil and strife that fainteth  
And murmureth on the way—  
Not the toil and strife that groaneth  
Beneath the tyrant's sway,  
But the toil and strife that springeth  
From a free and willing heart,  
A strife which ever bringeth  
To the striver all his part.

O, there is good in labor,  
If we labor but aright,  
That gives vigor to the day-time,  
And a sweeter sleep at night,  
A good that bringeth pleasure,  
Even to the toiling hours—  
For duty cheers the spirit  
As the dew revives the flowers.

O, say not that Jehovah  
Bade us labor as a doom;  
No, it is his richest mercy,  
And will scatter half life's gloom;  
Then let us still be doing  
Whate'er we find to do—  
With an earnest, willing spirit,  
With a strong hand free and true.

*Cleveland Democrat.*

**PULVERIZED CULINARY HERBS.**—The culinary herbs raised and put up by Mr. Howes Nourse, of Danvers, are sure to meet with favor, wherever introduced, from the fact that they are fresh, in neat packages, and, most important consideration of all, unadulterated, being raised on his own farm and put up under his own supervision.

*For the New England Farmer.*

#### PRUNING PINES.

MR. EDITOR:—In a late issue, I noticed an inquiry in regard to trimming young pines some twelve to fifteen years old. I would say in reply, that, in my opinion, it is best to let nature take its course, as a general thing. I have trimmed some not more than six or eight years old, to decided disadvantage, for this reason, if no other, When there comes rain, or ice on trees, the lower limbs bend to the ground, and brace up the trees; but when trimmed, the top bends over, perhaps to the ground, if loaded enough, and soon these trees will die out. I think larger trees might be trimmed to advantage, as fast as the limbs died, but not much faster. One thing is certain; unless you trim without cutting or bruising the bark elsewhere, you had better let them alone. Pines bleed very much when cut or injured in any way. If a person would be as careful in trimming pines as in trimming fruit trees, then it might be of some use, but generally they will use an axe, and cut and peel more bark than limbs; hence the injury. But to trim off with a saw all dead, dry limbs and the one year's growth of green ones at a time, and cut out the dead or dying trees, and be sure and not bruise those left to grow, I think would be an advantage to the owner, and, some fifty years hence, those who use this lumber will find that it will be free from dry, loose knots which would prove to be a decided advantage to the lumber. But do not trust those in your wood lot to trim, that you would not trust in your fruit orchard. Judgment and skill are as necessary in one place as the other.

ALVAN WARD.

*Ashburnham, Mass., 1860.*

#### NEW PUBLICATIONS.

TRANSACTIONS OF ESSEX AGRICULTURAL SOCIETY, for 1860. Published by order of the Society, December, 1860.

We have received from Hon. J. W. PROCTOR, a copy of this annual, containing the Address, by JAMES H. GREGORY; Reports of committees for the award of premiums; Remarks on Market Days—three of which were held during the year in different parts of the county; Reports on the Treadwell Farm; Essays; Treasurer's Report; Names of Officers and of New Members; List of Premiums; and Index. The 152 large pages which make up this noble pamphlet, afford space for something more than a mere skeleton of the Society's transactions; and it is so well occupied by details and particularities that we would recommend it as a model to other county societies, with the suggestion that more good might be effected by many were they to reduce the amount of premiums, and increase the money and labor expended on their annual Reports. The reports of the various committees for award of premiums occupy about two-thirds of the volume. Each committee presents a separate report, giving a brief account of the articles examined, the reasons for the awards made, and in many cases statements from the several competitors of the means and

process by which excellence and superiority have been attained. The committee on Underdraining occupy two pages with an introduction of the twenty-one pages which give in detail the experiments of six individuals, to three of whom the Society's premiums of \$15, \$10 and \$5 were awarded for the best conducted experiments in underdraining land. The Address, Essays and other matter of the volume appear to be able and interesting. This report will not only instruct the reader, but it must prove a powerful incentive to committees and experimenters, who shall venture to figure in the future Transactions of Essex County.

*For the New England Farmer.*

#### POTATO BLIGHT AND ROT.

MR. BROWN:—If Mr. Barbor, of Warwick, could spend one half-hour in viewing with a microscope the insects, in myriads, upon seed potatoes, he would not speak of insect depredation on the potato plant as a "theory," but would admit the fact of exhausted vitality and poison, by their attack and ravages at the roots. The insects are there, and the eggs are hibernated through the winter in our cellars. They have been examined the past summer, by a microscopic and entomological demonstrator of the Scientific School at Cambridge, as found in their larva age, upon undecayed potatoes, suitable to cook or plant. He declares "he never saw such an insect before; he should think there was a million on each potato, enough to cover the whole outside all over." If Mr. Barbor understood their history and habits, he would know that they are coleoptera, in form, consequently suctorial and aquatic in their habits. The latter being the fact, shows him the reason why his potatoes in the high ground were less affected than on the low. The insects from aquatic habits increased more rapidly, and their ravages were more virulent, and the poison more easily spread into vine and tuber in his low moist ground than on that "ten feet higher." The "Prussian experiments at Potsdam, in 1852, 3 and 4," fully corroborate his own statements, between high and low grounds. Wet seasons and low moist grounds act upon "the poison," which Dr. Harris says "these insects communicate to plants." On high ground the attack is less virulent and the poison does not spread so rapidly and destructively as on moist ground, or in very wet seasons. This shows Mr. Barbor why the "location and soil" may and really does vary the action upon the predisposing cause as acted upon by the remote cause of changes of heat and cold, rain and sunshine, suddenly acting upon plants where the vitality is cut off.

THE FARMER BOY.

January 2, 1860.

GUANO.—Gen. Cadwalader, of Maryland, whose purchases of guano have amounted to \$4000 a year, recommends a single application to worn out lands, naturally of good quality; and here its use should stop; it has served its purpose, and no second dressing of guano should ever be applied.

*For the New England Farmer.*

#### BUTTER AND MILK.

STATEMENT OF THE VALUE OF MILK AND THE SAME MADE INTO BUTTER.

Gov. BROWN,—*My Dear Sir:*—You will find herewith an account of my dairy for five months of the year 1859. It was my object to ascertain the relative profitableness of selling milk and making butter. The milk was weighed once a week, and the quantity obtained was considered the average of the week. The account shows a difference of \$71.63 in favor of butter.

Very respectfully, GEO. S. BOUTWELL.  
Groton, Jan. 12th, 1860.

#### BUTTER ACCOUNT.

MAY, 1859.	Dr.	
To 4089 lbs. milk—249½ cans, at 18c.....	\$44.91	
To making 211 lbs. butter, at 5½c.....	11.60	
To marketing.....	3.51	\$60.02
	Cr.	
By 76 lbs. butter sold, at 28c.....	21.28	
By 135 lbs. butter sold, at 25c.....	33.75	
By skim-milk from 249½ cans, at 8c.....	19.96	74.99
Balance in favor of butter.....		\$14.97
JUNE.	Dr.	
To 6070 lbs. milk—333½ cans, at 18c.....	\$80.03	
To making 305½ lbs. butter, at 5½c.....	13.27	
To marketing.....	3.66	76.86
	Cr.	
By 265½ lbs. butter, at 25c.....	66.37	
By skim milk from 333½ cans, at 8c.....	26.68	93.05
Balance in favor of butter.....		\$16.19
JULY.	Dr.	
To 7855 lbs. milk—392½ cans, at 18c.....	\$70.70	
To making 304½ lbs. butter, at 5½c.....	16.73	
To marketing.....	3.84	91.27
	Cr.	
By 304½ lbs. butter, at 25c.....	76.06	
By skim-milk from 392½ cans, at 8c.....	31.42	107.48
Balance in favor of butter.....		\$16.21
AUG.	Dr.	
To 7375 lbs. milk—368½ cans, at 18c.....	\$66.33	
To making 269½ lbs. butter, at 5½c.....	14.84	
To marketing.....	4.05	85.27
	Cr.	
By 269½ lbs. butter, at 25c.....	\$67.44	
By skim-milk from 368½ cans, at 8c.....	29.60	96.94
Balance in favor of butter.....		\$11.67
SEPT.	Dr.	
To 6750 lbs. milk—287½ cans, at 18c.....	\$51.75	
To making 228 lbs. butter, at 5½c.....	12.54	
To marketing.....	3.12	67.41
	Cr.	
By 228 lbs. butter, at 25c.....	\$57.00	
By skim-milk from 287½ cans, at 8c.....	23.00	80.00
Balance in favor of butter.....		\$12.59
Total balance in favor of butter.....		\$71.63

It required an average of 1 27-100 cans of milk to produce a pound of butter.

THE OAK TREE DISEASE.—At the December session of the Philadelphia Farmers' Club a gentleman present expressed the opinion that there was reason to fear the general destruction of the white oaks. "A close examination," he said, "will disclose more or less disease in nearly every tree—in some only at the extremity of the topmost branches, or leading shoots; while in others a general affection is more visible." We have not noticed any indications of disease among the oaks of this section.

## THE WHITE SPRUCE FIR.



The Fir, Pine and Larch trees ought not to be entirely dispensed with about any of our farm-houses, or the houses in our villages or cities, wherever there is anything like a liberal surrounding of ground. They "constitute a perfectly natural genus or family, and next to the oak, are the most valuable of our timber trees but independently of their value in this respect, their beautiful foliage and magnificent appearance have at all times rendered them objects of admiration and attention."

Nothing relieves and beautifies the landscape in the winter like evergreens. They refresh the eye, protect the buildings and small shrubbery, and give the homestead a snug, social aspect. Their presence also brings up pleasant memories of summer and green fields, and all unconsciously, perhaps, to the beholder, promote healthful imaginations and a refreshing quiet and repose.

Those persons who have visited the enterprising and beautiful town of Greenfield, in this State, will at once appreciate our views. On passing through that village, the attention of the traveller, or visitor, is at once arrested by the large amount of ornamental shrubbery that is so tastefully arranged around the dwellings, and especially by the numerous fresh and symmetrical white pines that make nearly every dwelling he passes so inviting, that he feels as though he must go into the house itself, and have a chat with its intelligent inmates.

The *White Spruce Fir*, here represented, is a fine specimen of its class, and we hope will be sufficiently attractive to cause many persons to embellish their homestead with a few evergreen trees.

*For the New England Farmer.*

## AGRICULTURAL EDUCATION.

*Resolved, That a system of agricultural education should be adopted and form a part of the educational system of the State—Proceedings of Massachusetts Board of Agriculture.*

Massachusetts has always pursued a liberal policy with regard to agriculture, and her societies for its promotion, her board for its supervision, are strong memorials of her zeal in its advancement. These are very good pioneers in their way, but after all, they do not reach the greatest requirement existing, to secure the object of this legislative duty. In all enterprises, knowledge is the first or moving power, the lever necessary to success. The more and weightier the obstacles in the way of advancement, the more necessary the application of this power becomes.

When the forests of our State bowed before the tokens of civilization, it required no great skill to cause the unworn earth to produce abundant harvests. A running fire over the newly cleared fields, a little scattering of seed and scratching among the stumps, ended the farmer's toil until the wavy grain was ready for the harvest. There was no draining, no subsoiling, no composting of manures to be done then. The labor to secure a crop from a cleared field was light, soon over, and the remaining time would be appropriated to removing another strip of timber from the forest, to introduce a new field for the next year following. It did not require much mental effort to do this. Nature had ground down the rocks, and mingled their debris with mould that had been accumulating for ages, in proportion to meet her own wants, without the aid of the chemist. Time had opened water-courses, so that the surplus tribute of the clouds was borne away, giving no detriment to the plain or the hill-side. In fact, everything had been adapted to make the earth fertile in yielding supplies for the necessities of man.

Time and the continued droppings to which the soil has been subject, has worn down the capacities that the soil then possessed. How many loads of its former fertility have been carried to market in the grain, beef, pork, butter, cheese and wood that have been sold, would be the solution of a curious and startling problem, whose result would show that more fertility has been sold from every farm, in these articles, than the present value of the farms. It is very true, that in keeping a flock of sheep, or fattening a yoke of oxen, the farmer retains much that if judiciously applied, will enrich his land. But not all. If he sells a thousand pounds of wool, the wool is not all made of air and water. Or if a hundred sheep are fattened and taken to Boston or New York, it cannot but be supposed that the farmer who fattens them, disposes of a part of the fertility of his farm with them. So with grain and hay, if we sell them, we sell a portion of our grain fields or meadows with them.

Here, then, we see one cause, why the lands of some portions of Massachusetts do not produce, as tradition tells us they formerly did. The fertility

of her soil has been marketed in its produce. The very best portions of it have been taken away, leaving those which are hard, cold and barren. So cold and hard that surplus water no longer flows in natural channels, but stands, and chills, and sours and poisons the very ground it occupies. So very hard that it refuses the subduing influences of the sun and atmosphere.

It was a mistaken policy that led to this protracted and perpetual drainage of the soil without returning to it equivalents to keep up its harvest-yielding qualities. But the deed is done, and it only remains that man by intelligent labor restore what has been lost by ignorance and neglect.

We may well congratulate the farmers of Massachusetts, then, on the passage of the resolution at the head of this article, in the full expectation that the present Legislature, out of pure affection to the Commonwealth, whose interests it is bound to serve, will see the spirit of the resolution engrafted on our statutes. Then they will have done the noblest work for the farmers of the State that has ever been attempted.

The inquiry comes up, how this "system of agricultural education shall be adopted to form a part of the educational system of the State?"

Different ways of answering or fulfilling the spirit of the resolution will have their advocates. Some, very likely, will think that departments should be established in our colleges, and professorships richly endowed to carry out a course of instruction favorable to the object; others will see the object gained by establishing agricultural schools and experimental farms; and another class will suppose that our academies and high schools can very well be made the auxiliaries of agricultural science.

We should heartily rejoice if rural art in all its departments were thoroughly taught in all these institutions, for there can be no doubt but very much good would result in consequence. We hope the day will come when our colleges will be more respectful of the farmers and their employments than they have ever yet shown themselves to be. We sincerely hope, that Massachusetts will have her agricultural, as she now has her law, medical and theological schools.

But even if this were done, it would not fully meet the necessities of the agricultural interest, for there would be an outlay of time and expense attending a course in these institutions, that but a small proportion of prospective farmers would be willing, or able to meet; so that the many require some system of instruction brought more within their means, to enable them to become the intelligent cultivators of the soil, which the spirit of the age requires them to be.

The people have colleges scattered all over our State. We find their humble structures at almost every corner of the land. These colleges are beginning to be much better endowed both pecuniarily and intellectually than they once were. Better buildings are arising, and more spacious grounds are laid out for their accommodation. In past time, they have been the strength and glory of the land. In their future, we anticipate much for intelligence, usefulness and honor. They ever have been, and ever must be, the colleges from which the masses of agriculturists and artisans graduate. If agricultural schools ever become a strong band and ornament in our country's pros-

perity, these colleges—our common schools will be the nurseries in which thrifty plants are prepared to remove to the higher gardens.

In past time, there have been great obstacles in the way of introducing the services connected with agriculture into our common school system, in the want of suitable books. But fortunately, at the present time, these difficulties are fully removed. Prof. Gray's "How Plants Grow," and "First Principles of Botany," are written in as familiar style as the most ordinary reading book. "Wells's Science of Common Things" contains more than a thousand and one facts, which relate to things that surround us, and in which we are daily interested, all communicated in an agreeable and attractive style. "Natural Philosophy," and "Chemistry," both by the same author, are both well adapted to the school-room or the family, while Doctor Hitchcock smites the rocks, and makes them give forth intellectual waters, clear, pure and sweet, in his "Elementary Geology," in streams so placid and simple, that any boy who can reduce a fraction, can fathom its mysteries. Then there are other works equal in value, to follow in succession, until a full course is represented, and the practical mental food for a life-time is set before the student.

There are, however, one or two difficulties yet to be removed, before these studies can be successfully pursued in the common schools. The first is, teachers competent to the work. Now-a-days, the teacher qualifies himself to teach those branches required by law. We can scarcely find one who has paid attention to any of the studies above named, or at least, that claims knowledge of them sufficient to teach. They may speak bad French, worse German, or miserable Italian, while with nature as she exists around them, whether in her economy or her beauty, they have sought no acquaintance, and claim no affinity. If our Normal schools are to educate our teachers, let them first educate them in the things available in practical life, especially in the mysteries of its beautiful surroundings.

Let agricultural education form a part of the common school educational system of our State, and let teachers be qualified and enter into it with the zeal that the interests of the State demand, and a new and brighter day would dawn upon our rural interest, than the most sanguine can easily imagine.

WM. BACON.

Richmond, Jan. 17, 1860.

For the New England Farmer.

#### IS FARMING PROFITABLE?

This seems to be the engrossing topic of several of your correspondents from Middlesex and Hampden, as it undoubtedly is the object of the efforts of a majority of the hard hands throughout the Commonwealth. For what other purposes do they toil from "early morn to latest eve," but to secure the profits of their labor? "By their fruits shall ye know them." Look about among the prosperous and well-to-live in the land, and where will you find these classes to abound more than among the industrious farmers? Who ever knew a farmer who stuck to his business, letting alone speculation of all kinds, to fail? I should as soon think of meeting a white crow. Fail is a term not

known in their vocabulary. Masters in Chancery would do a miserable business, if they had no other than what comes from honest farmers. I say honest farmers, because from my experience in the world, and it is not short, honesty is more likely to be found pure and undefiled in this class of citizens than any other, though some of these occasionally strike their corn with a jerk, or shake down their milk, 'because it is apt "to heap a little." Nevertheless, I am happy to bear testimony, that there are honest farmers, and thank God that I was born of such stock, and only regret that I ever strayed from their abode. P.

December 12, 1859.

### LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The third meeting of the present series of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening. The attendance was larger than at the previous meetings, the hall being nearly filled, and the company frequently applauded the remarks of the speakers. The meeting was called to order by Hon. Simon Brown, who introduced Hon. MARSHALL P. WILDER, as Chairman of the evening, in a few happy and appropriate remarks. The subject for discussion, was "*Fruit and Fruit Culture.*"

On taking the chair, Mr. Wilder said he should speak on the question for discussion principally from matters that had occurred in his own experience, or of which he had some knowledge.—He said there were few subjects that had marked the progress of civilization more or better than the culture of fine fruits. Ancient writers, said he, speak of apples, pears, plums, cherries and others, but I am satisfied the fruits of those times bear no comparison with the fruits of our day. From the time of the writings he had alluded to, to the close of the seventeenth century, we knew little of fruit, although in some monasteries there were accounts of several varieties of pears, and in 1680, the gardener of Louis XIV. had three hundred varieties, of which he said sixty-five were excellent, yet only two of these are now considered worthy of cultivation. This he mentioned to show the improvements that had been made in the cultivation of this fruit.

In 1817, Mr. Wilder said that Cox, of New Jersey, the principal fruit-grower then in the country, had sixty-five varieties of pears in his catalogue, while of these we have now only two. The speaker then alluded to the growth of interest in fruit culture from the establishment of the London Pomological Society in 1805, the Paris Horticultural Society formed in 1826, to the establishment of the Massachusetts Horticultural Society, in 1829.

He alluded to the first exhibition of the latter society, when Mr. MANNING, of Salem, showed only two bushels of peaches, but during his life he proved 80 varieties of apples and 60 varieties of pears, recommended by the American Pomological Society, and said that now there were men who had from 800 to 1000 varieties of pears, and who had exhibited nearly 400 on a single occasion. He said that on the formation of the Massachusetts Society, there were only three or four nurseries in this region, while now they were numerous and cultivated in the very best manner, covering hundreds of acres. In Rochester, N. Y., there were nurseries each covering 300 or 400 acres, and in three counties there were fifty millions of trees for sale, the scions of many of these having been sent out originally by the Massachusetts Horticultural Society.

Mr. Wilder then spoke of glass structures in connection with fruit raising, saying that formerly there were few in New England, now they were numerous. He said that there were 40,000 pounds of the foreign grape grown annually within thirty miles of Boston. From this he passed to the consideration of the native grape, asserting that the Catawba had driven the Malaga from the market, solely through its superior quality, and he had been informed by one man who kept a stall in Faneuil Hall Market, that he had sold two and a half tons of Catawba grapes during last season, having received them from the West.

Our seedlings were then alluded to, and the speaker praised these highly, arguing that the aroma is to be the test of the grape, and that the flavor will be what will distinguish them above the European in the making of wine. He mentioned some crosses of the grape which had been produced, and he felt satisfied that the day was not far distant when our hardy grapes will be preferred to the foreign sorts.

Wines were then considered, and the gentleman said that there was one firm in this city who now manufactured 20,000 gallons annually from grapes grown along the Charles River, while hundreds of thousands of gallons were made in Connecticut and Ohio, and other States, and California could make enough to supply the whole world.

Mr. Wilder next spoke of the cultivation of the strawberry which was almost unknown here in 1829, and which had grown to be so important and profitable a fruit. He illustrated this by stating the product of two-fifths of an acre of ground in Belmont, last season, which yielded at the rate of \$1300 per acre, and said this was not a solitary instance of the immense profit made.

The apple, said the gentleman, is the great product of the farmer, and on the cultivation of this he would speak, first correcting an error he had made at a previous meeting in relation to the



quantity of apples exported from Boston in the fall and winter of 1858 and '59. This was 120,000 barrels, and the majority of these were Baldwins.

Mr. Wilder here said he had received a letter of interest from Mr. Baldwin in relation to the original tree from which the Baldwin apple took its name which he would read to the meeting at the close of his remarks.

We have, said the speaker, a multitude of foreign varieties of fruits under cultivation, but he thought there were none better, if as good, as the native, and he would recommend attention to these. He said he had so often spoken of the practical methods of cultivation that he would only glance at the most important matters now. The first and most important matter is *thorough draining of the soil*, and this, he considered, not only applied to horticulture but to the agriculture of the nineteenth century. It is, said he, to the farmer, as much an improvement of his land as the telegraph for communication is over the steam cars. He spoke of the impossibility of a tree being thrifty while its roots were in a cold, wet soil, and ridiculed the idea of a man expecting to have a healthy orchard in this condition.

Again, the ground should be thoroughly and deeply worked, and to show the benefit of this, he spoke of parsnips and horseradish, three feet long, which he had seen, and which were grown in a garden, the soil of which had been thrown up from a cellar and was thoroughly worked; he also spoke of a pear tree he had seen in a garden in Roxbury, where the soil was four or five feet deep, drained by a rivulet flowing through the ground, and which produced last season some 800 pears, while one he had of the same size and age, but not having the advantages the Roxbury one had, only bore about 100.

Digging circles round trees is of doubtful utility; he mentioned a peach tree, to illustrate his position, that had a heap of manure lying fifteen feet from the trunk, that grew shoots four feet long from the feeding of the manure. This digging among the roots is consequently injurious. Circle manuring don't feed the roots, as the roots run beyond, either on one side or the other. There were more orchards injured by deep digging and by deep plowing than by anything else. He would allow no plowing in his orchards, and only used a hoe to scarify the soil, manuring on the surface, and working it in with a hoe or a light cultivator, and this was done in the autumn.

The Chairman closed his remarks by condemning the practice of growing other crops in the orchard besides fruit, and expressing the gratification he felt, that we are paying more attention to the cultivation of our native fruits than we are to foreign ones.

Col. Wilder then read the following letter previously alluded to in his address:

Boston, January 30, 1860.

HON. MARSHALL P. WILDER:—Dear Sir—You may remember that a few years since several gentlemen of the Horticultural Society expressed a wish that an inquiry should be made as to the origin of the Baldwin apple, so called, the place where the first tree was planted, its history, &c. &c.

That inquiry was commenced, and has resulted in fixing the site of the first tree which bore that kind of apple. It is in the south-westerly part of Wilmington, in the county of Middlesex, near the public highway.

The evidence of this fact is shown by the declarations and statements of several individuals, some made under oath, and this testimony seems to be reliable. A survey has been made of the neighborhood, and a plan thereof drawn, and the spot where the original tree stood pointed out.

If the papers containing this information should be deemed to be of importance enough to be preserved in the archives of the State, they can be furnished at short notice. At this time I would suggest the propriety of having the site of this ancient apple tree designated on the map of the commonwealth, if the commissioners to whom are entrusted the additions to the map should think the testimony above referred to would justify such designation.

With great respect,

Your obedient servant,

No. 128 Tremont Street.

JAMES F. BALDWIN.

Mr. ASA SHELDON, of Wilmington, being then called on, said there had been considerable dispute in regard to where the Baldwin apple originated, and there were only one or two persons now living who had seen the original tree, which was found in the woods by a grandson of Mr. Butters, of Wilmington, and he transplanted it. He had, with others, devoted some time in finding out the history of the tree, and where it was planted by the above-named gentleman, and was satisfied they were correct in the location. They only found one person who could tell what became of it, and this was learned in the following manner. Col. Baldwin, the father of the gentleman whose letter the chairman had read, was well acquainted with the original tree, which stood on the spot designated when he went to Lynn to learn shoemaking. He remained in Lynn eight years, and when he came back the tree was gone. On further inquiry, the investigators of the subject found a widow woman, who is since dead, who said that the tree was destroyed by lightning on the day she was married, and this circumstance Mr. Sheldon thought must have been particularly impressed on her mind.

He thought some appropriate notice should be taken of the site where this tree stood, from which the State has derived more just notoriety than from any other source. In conclusion, he said that Col. Baldwin, the son of the discoverer, propagated the tree, as the old gentleman had never thoroughly appreciated the value of the fruit.

Colonel STONE, of Dedham, said that the subject of fruit culture was of as much, or more importance, than any other to the agriculturist of Massachusetts, and there were few who could realize the benefit the Baldwin apple has been to us. He spoke of attending a meeting of horticulturists in the western part of New York, and of the decided preference given by fruit cultivators there to the Baldwin for profit, saying that one man had



told him if he was going to set out an orchard of 1000 trees for profit, 999 should be Baldwins. Few people understand the matter of fruit cultivation, and yet it was so simple he could scarcely explain it. Many people decline engaging in the cultivation of fruit, because so many fail, but a good orchard could be secured as easily as a crop of potatoes or corn, with less labor and greater profit.

He advocated thorough drainage and thorough pulverisation of the soil—not sub-soiling and trenching—but to be done by loosening the soil, and not manuring too highly.

Mr. Stone then spoke of the Messrs. CLAPP, of Dorchester, who, by systematic culture, raised on five acres of land, planted with apple trees, \$600 worth of currants as an undercrop, while they had each year a large crop of the best apples. [The chairman said that the profits of Messrs. Clapp were between \$2500 and \$3500 per year.]

Col. Stone then spoke of the immense quantity of apples exported from northern and western New York, and the profit made by the business. He said the pear had been considered more difficult to cultivate than the apple, but he was satisfied that in the first 15 years he could make as much profit from an equal number of trees as he could from Baldwin apples, although they would require different treatment.

The chairman said that currants were an exception to any other crop for an undergrowth in orchards, as they will grow better in the shade, and bear abundantly where no other crop will. He considered that grass or grain exhausted the trees. He spoke of a man, in Rochester, N. Y., who, from half an acre of the St. Michael pear trees, 8 years old, raised last year 40 barrels, which he sold for \$15, \$16 and \$20 per barrel, at the lowest rate realizing \$640. Mr. Wilder also alluded to the orchard of Mr. Austin, in Dorchester, as being very productive, and said that the pear could not be grown on gravelly, sandy or boggy land, but required rich, deep loam.

Mr. DEMOND, of Ware, asked what the best mode of pruning fruit trees was, as also the season to do it and the best wash for young trees? also saying that in his part of the State they were in the habit of getting another crop from their orchards, and he wished to know what was considered the best crop.

Col. STONE said he trimmed his trees about the last of June, as by that time the sap had got into the leaves, and the cutting will not do injury by allowing the rising sap to run out and prevent healing. In relation to wash, the gentleman said he discarded *potash altogether*, as it never was intended to be applied to fruit trees. He used one-third soft soap, a year or more old, and two-thirds water, and washed twice a year. Of this a sufficient quantity remains on the bark for the alkali

to run down by the action of the rain, and thus keep off the borer. Alluding to undercrops, Mr. Stone said that for the first 8 or 10 years he thought plowing would not hurt the trees, and he would recommend the raising of root crops so as to keep the ground free of weeds.

A gentleman asked what should be done to prevent so many of our apples becoming so wormy, as he understood that nearly three-fourths of the crop in Worcester county had been spoiled the past season by this trouble.

Col. WILDER said that the best way to prevent this was to prohibit the destruction of birds, and he spoke of a correspondent in Belgium informing him that their fruit was nearly ruined in consequence of the destruction of birds for epicures. He said he was informed that apples sold there, in consequence of this, for \$9 per sack, or \$6 per bushel, and this in the finest fruit-growing country on the continent.

Mr. SIMON BROWN, of Concord, said the Chairman had covered a good deal of ground in his opening address, but he would only touch on one or two subjects. The first was the grape; and he hoped to see more attention paid to the cultivation of this fruit. We look upon the apple as a blessing, but I am sure the grape will eventually be considered of almost as much importance. It has been a great problem to solve, as to what will check the habits of our people in the indulgence of intoxicating drinks, and the speaker gave it as his opinion that the best means to do this would be to make the cultivation of the grape common, and thus make cheap wines common. As an illustration of the effect cheap wines have on the temperate habits of a people, he spoke of an artist friend who had travelled in France for a year and a half, who had told him that during that time he had only seen one man intoxicated, and only some half dozen in the least disguised with liquor; he had also travelled in Italy a year, and the result was the same. Mr. Brown spoke of the temperance of the people of Hungary in support of his theory, and also the extraordinary fatigue Napoleon's army had undergone on their dry crust and pint of wine. He said there was room enough in the city to raise tons of grapes; indeed, these were the best places, as they were sheltered by the warm, sunny walls, from the winds, where with a little care they can be raised in perfection. He had been told that several of our hardy, and even tender kinds, would flourish on a north wall. There were seventy-five new varieties he had information of, of which several were said to be equal to some of the white grapes raised under glass, and this ought to serve as a stimulus in the greater cultivation of this delicious fruit.

In reply to a question which had been asked, Mr. Brown alluded to pruning trees, and said

that all the borers, and other injurious insects, with plowing and browsing cattle, did less harm to a tree than pruning it at the wrong season. If the tree is pruned in the spring, when it is in full activity, and all the pores of the sapwood filled with limpid juices on their way to the twigs, buds and leaves, there to be elaborated into the food that goes to form fruit and wood, the sap will in most cases stream copiously from the wound and keep the pores permanently open. This continues to exhaust the vitality of the tree, while the sap, upon exposure to the air, undergoes an important change by becoming sour, bitter and poisonous, runs down the bark, turning it black, and finally penetrating to the wood itself, and in the end destroying the tree. But if the pruning is omitted until the middle of June, the sap by that time has mainly left what is called the sapwood, has been transformed from its limpid state to a thicker, gummy-like substance, and is passing slowly down between the inner side of the bark and the wood to make up the annual growth of the tree. If the tree is cut now, no sap follows, the surface of the wound contracts and closes the pores, and the wound readily heals over. Because our ancestors had not much to do in the last of February and March and the early part of April, they formed the habit of pruning their apple trees; and as a habit once formed sticks to our people a little tighter than the shirt of Nessus, they have persevered in the old way until there is scarcely an orchard thirty years of age in New England that does not bear unmistakable evidences of this unnatural and untimely pruning.

Mr. FAY, of Lynn, corroborated what Messrs. Stone and Brown had said in relation to pruning, from his own experience on forest trees, but he considered that the Augustan age in farming had arrived, when a farmer could offer you a good mug of cider. This he considered was peculiarly the beverage of New England, and if a farmer was allowed to drink his mug of cider he thought he would make a better farmer and a better man; yet the law said it was unfashionable, and so it was not done. He made a strong argument in favor of excluding cider from the list prohibited in the liquor law, and said he had never seen so much intemperance in New England as he had within sight of the Pyrenees. He believed we could not grow the grape to satisfy the demand, and we must therefore turn to cider. Mr. Fay explained that the grape for fruit and the grape for wine were different, the latter only growing well on lands of volcanic origin, which gave the rich vinous flavor, and he considered that California on this account was the only wine-producing country on the North American continent.

Mr. ARWATER, of Springfield, asked what was the best soil in which to plant the apple, and

spoke of some lands in his section of the State where the water settles, at certain seasons, to a level 20 to 25 feet below the surface.

Mr. ALLEN, of New York, explained this, and spoke of similar instances in Western New York and Ohio, expressing the opinion that these were not favorable sites for fruit raising.

Mr. CLARK, of Waltham, asked whether the Catawba grape had been cultivated enough in our State to ascertain whether it would succeed.

Mr. WILDER said that the Catawba was found too late, and the Isabella had been found to ripen only occasionally so as to make good wine.

Mr. BUCKMINSTER, spoke for the young folks, and thought that attention should be directed to other fruits that would begin the first year to pay, and he alluded to blackberries as returning a large profit. He urged on the farmers the importance of teaching their sons and daughters more in relation to fruit raising, as being one of the greatest profits of a farm.

Mr. SIMON BROWN offered the following resolution, which was unanimously adopted:—

*Resolved*, That it is the opinion of this meeting that the science of pomology has already conferred signal blessings upon mankind, and that, among the fruits introduced and propagated, the *Baldwin apple*, as an article of substantial food as well as commerce, has taken a high and well-deserved stand. We, therefore, approve the suggestions made in the letter which has been read from Mr. JAMES F. BALDWIN, and recommend that the spot where the *first Baldwin apple tree stood*, be designated upon the State map, and that the Chairman of this meeting be authorized to call upon the proper authorities and procure it to be done.

The Chairman then announced that the subject for discussion at the next meeting would be "*The culture of flax in the Northern States, and its probable substitution for cotton in the manufacture of cheap fabrics.*" Hon. Judge BISHOP, of Lenox, is expected to preside.

Mr. BROWN, on behalf of the Executive Committee, said it was expected that a gentleman who had given much study to the subject for consideration would be present and address the meeting, producing samples of cloth made from flax and from flax and cotton, as also machinery for breaking the flax, and the committee earnestly urged ladies to attend this meeting of the society.

The meeting then adjourned.

**UNHEALTHINESS OF ARTIFICIAL MANURES.**—Attention is called to this subject by a correspondent of the *Mark Lane Express*. He thinks that this is one cause of disease so prevalent this year in England, among turnips. He cites the expressed opinions of several practical farmers of the injurious effects on sheep and cattle of roots cultivated by the use of artificial manures. A laudable desire, he remarks, to increase the productions of the earth has led to the introduction of powerful manures, without sufficiently studying the laws of physiology.

## EXTRACTS AND REPLIES.

## FEEDING BEES.

I purchased last summer two swarms of bees; the youngest one I am afraid did not lay up honey enough to last them till summer. If you, or some of your correspondents, will inform me what will be the best food for them you will oblige a reader of the *Farmer*.

LAZARUS.

Salisbury, N. H., 1860.

REMARKS.—Put a little liquid honey on the top of the comb, where it will slowly trickle down among the bees, or put a few sticks of barley candy among the combs, as near where the bees are clustered as you can get them.

## HOW TO BUILD A MILK-ROOM.

Some three years since it became necessary to build a new dairy room. And in order to have it handy and right, it must be next to our cook-room. There being a rise of ground and an orchard of apple trees where it was destined to be, there was not room enough to set it level with the rest of the buildings, therefore it was decided to set it three and a half feet higher than the cook-room. It is divided into two rooms—one for a summer milk-room, with blinds, ventilator and milk-racks to set the pans upon, which gives a circulation of air around the pans. And plenty of cool air is what we want to make the cream rise well.

The room next to the cook-room is the winter milk-room. We neither scald the milk, nor put in carrots to make yellow butter, but simply strain the milk through a cloth and set in on the milk-rack. The room being higher, the heat rises, and the temperature is just right to give a beautiful yellow cream; that is what makes yellow butter. Churn the cream in the thermometer churn made by Nourse, Mason & Co., Boston and Worcester, and you will have butter worth as much as Mr. Joshua T. Everett's.

F. S. C.

Woodbury, Vt., 1860.

## ANONYMOUS COMMUNICATIONS.

I am pleased with the spirit of those who demand of writers to put their names to what they say. This is certainly well when what is said has not strength in it to stand alone; but when it has, why not put it forward to make its own way in the world?

I have often thought where a man comes out with his name signed to something that others may possibly know as well or better than himself—especially if they have had many more years for experience and opportunities for observation—that it savors not a little of vanity thus to sign one's name. For myself, until better advised, I shall be content to throw out such ideas as I have, and let them find their way along as best they may.

January 21, 1860.

## TO KILL LICE ON A COLT.

Feed it with meal, and mix in about a spoonful of sulphur a day for a week, and then rest a week; then feed more sulphur, a few days, and the lice will leave.

## POTATO SPROUTS FOR PLANTING.

After my corn was up and hoed last season, there were some hills missing. I told my son to go into the cellar and pick off some of the largest sprouts, from six to eighteen inches long, and set them out in the corn-missing hills which had been hen manured in the hill for corn, which he did. They all grew, and yielded equally as good and as many in the hill as the same kind did in the same kind of ground the year previous. There was no rot among them; they were the Coburg and Sand Lake varieties. Please remember that the sprouts or vines were picked off with the *fin-gers* as close to the potato as possible. The potato, after this, was given to the hogs, whole and sound. So I say to all, you may let your potato sprouts grow as did mine, in a warm place, and then set out the top, and raise them as well, I believe, as in the usual way, saving the whole of the tuber for other purposes.

W. SHELDON.

Bristol, Vt., Jan., 1860.

## MUCK FROM OTTER CREEK.

I wish to inquire what sort of manure I shall have, if I cover my yard with a sort of muck taken from the bank of old Otter Creek, and let it mix with the cattle droppings through the remainder of the winter.

A YOUNG FARMER.

REMARKS.—Cannot tell you, sir; ask some of your neighbors who have given attention to mucks. Don't hesitate to learn of any one about you.

## A FINE CALF.

I had a calf 8½ months old, dressed yesterday. To-day the four quarters, hide and tallow, weighed 550 lbs. If any of your Massachusetts men have had a larger native calf than mine, please say so.

WILLIAM RHODES, JR.

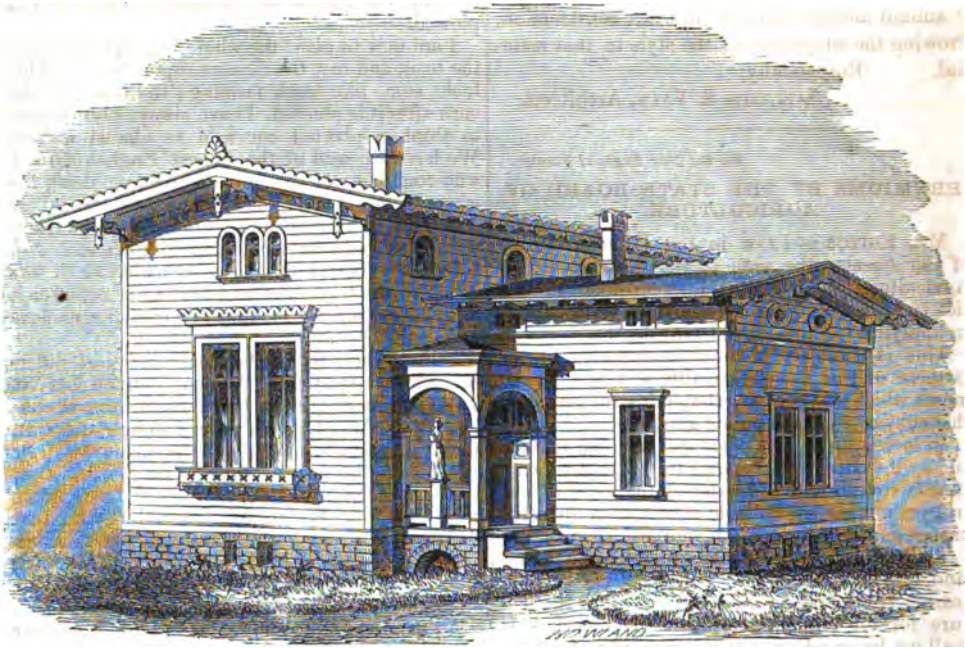
Richmond, Vt., Jan., 1860.

## TO CURE CHILBLAINS.

Take strong vinegar, one spoonful, and as much fine salt as will dissolve in it. Bathe the part so chilled two or three times, and you are better; then next night two or three times more, and you are well.

L. AMES.

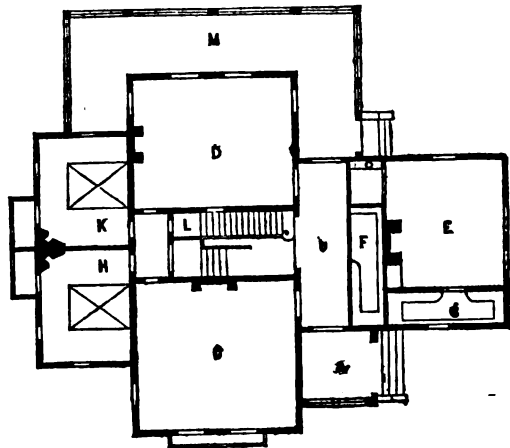
WALKING HORSES—A SUGGESTION.—I would like to suggest an idea, which, if you approve, you can prepare an article, or get some of your correspondents to discuss, as to the propriety of a premium being offered at our annual fairs, for fast walking horses as well as trotters. I think horses trained to walk fast would be a greater benefit to farmers in general than fast trotters, as almost all of their work has to be done with a walk. I once knew a man in Massachusetts, who, before the railroads were built, kept from two to four teams at work on the road, and never allowed them to trot at all, and made the distance in quicker time than his neighbors, who made their horses trot at every convenient place. He said that when a horse commenced to walk after a trot, he walked much slower than his common gait if kept on a walk, and thereby lost more than he gained.—*Country Gentleman*.



THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

We submit above an example of the new American style of architecture for Cottages and Villas, which is now being adopted by many persons of refinement and taste; this example, though small and quite plain, shows the general characteristic of the style, and those characteristics we intend as representing the comforts and requirements of the American people. Is there a reason why we should not have a style of our own? What an abundance of materials we possess, and with all our ingenuity in other sciences and arts, why should we be so far behindhand as regards architectural beauty, in the designs for our country homes? Our attempts may not be successful in producing a natural style, but we shall make the greatest endeavors to perfect our designs more and more, as they leave our hands, until we have reached a great degree of perfection. *Why* we introduced the variety of forms, &c., in this design, would take up too much space to describe, but we will state, there is not a single detail but what has character and meaning, as regards the plan, as the owner gave his own requirements and arrangement.

A, is entrance porch; B, Hall; C, Parlor, 16 by 14; D, Dining-Room, 16 by 13; E, Kitchen, 12 by 13; F, Store Room; G, Kitchen Pantry; K and H, two Bed-Rooms with fireplaces and closets to each; L, Closet for dining-room; M, Verandah, 6 ft. wide. On second floor of main building are two bed-rooms, bath-room and closet; the attic over kitchen is used as a place for storage. There is a



cellar under the main building and kitchen wing only. Parlor faces north, Dining-room south; Kitchen east; Bed-room wing only one story high.

Cost, on Long Island, \$2500. We shall shortly submit another example in brick construction, showing the adaptation of the style to that material.

Respectfully,

SAELTZER & VALK, Architects.

*For the New England Farmer.*

#### PREMIUMS BY THE STATE BOARD OF AGRICULTURE.

MR. EDITOR:—I saw in the January number of the *Farmer*, the vote of the State Board of Agriculture, requiring the different county societies to offer premiums for the best experiments in applying manures at different depths.

This is a subject of much importance to the farmers of this Commonwealth, and any experiments which will give us reliable instruction upon this subject will be a public good.

In looking over this offer, and the plan marked out by the Board, it appears to me that we may strictly comply with the letter of the instructions, and yet not get any reliable information upon the proper depth of applying manures.

They do not tell us whether it is to be sward land, or land that has been cultivated one or more years. If we take sward land, and plow the manure for lot No. 1, underneath the sward, how shall we know whether it was the fact of its being beneath the sward, on the depth at which it was applied, that caused the different results?

When we come to lot No. 2, and try to cross plow it, and get the manure at half the depth, we infer the Board intended the experiment should be tried upon old land.

We will take a piece of mellow ground, and spread the manure upon lot No. 1, and plow ten inches deep, and if the manure is fine and well composted, as the furrow slice rises and cracks, the manure falls in, and gets well mixed with the soil, instead of being buried at the bottom of the furrow; if the manure is coarse, much of it will be left where the plow will draw it up when we come to cross plow at half the depth; thus we may follow the directions, and yet not furnish any reliable instruction upon this subject. The only way in which I could get the manure at a uniform depth when plowing it into mellow land, would be to follow the plow with a hoe, and draw the manure into the furrow, and then turn the next furrow upon it. If the Board had required this, the experiment might have been useful.

I will now go upon lot No. 2. It has been plowed deep, according to the directions. I will try to spread the manure upon the rough furrows, for according to the directions, I must not put the harrow upon it yet; much of the manure falls into the holes; I then cross plow it five inches deep; at what depth does any one suppose the manure is covered? To test it fairly, I think that No. 2 should have been rolled down smooth, and the manure placed in the bottom of the furrow at half of the depth of No. 1.

I next spread the manure upon No. 3, and then I am told to take a harrow or cultivator and go over the whole lot. What is the effect of this

upon No. 2? Does not the harrow move much of the manure, and mix it with the soil, and may not the result be affected by the mixing, as much as by the depth? I think there should have been nothing but a bush harrow upon it after it was plowed.

I am now to plant the whole lot, and then take the team and cart the manure upon No. 4. This looks some like book farming; to drive over the corn after it is planted. I have always been taught to think a planted cornfield as almost sacred. We have all read of the honest English farmer who complains of the hounds treading down his wheat in the spring, and was paid for the injury done; but at harvest time, he found that the trampling had been an advantage to him; so if No. 4 does the best, how can we tell whether it was owing to the trampling and beating it got after it was planted, or the manner in which the manure was applied?

I think there will be but little practical difference in the condition of the manure upon lots No. 3 and 4, except for the first three or four weeks; I begin to run the cultivator through the corn about the 1st of June; then the manure will be mixed with the soil the same as on No. 3. They tell us that the after cultivation must be the same upon each lot. But they do not tell us what that shall be. By using the plow, or Sawyer's improved cultivator, we may hill it up so as to spoil the whole experiment, and yet be entitled to the premium according to the offer.

An experiment conducted in so loose a manner is worse than none. They say nothing about how we shall plow it the second year. If the manure has been where they supposed it to be, when we plow No. 1, it will bring the manure to the surface for the second year, and the others will be buried. What instruction can we derive from such an experiment?

I have endeavored to take a practical view of this subject, feeling that when the Board holds the rod of state over the backs of the county societies, and say, thus shalt thou do, the public have the right to ask, what will be the practical benefit?

WILLIAM R. PUTNAM.

Danvers, Jan. 25, 1880.

*For the New England Farmer.*

#### LUNAR INFLUENCE ON THE TEMPERATURE OF THE EARTH.

Your correspondent "J. A. A.," of Springfield, has given a series of experiments in your issue of Jan. 7th which are of more than ordinary interest. There is nothing like exactness, even in farming. He has certainly made out a pretty clear case, that there can be no connection between high and low moon, a new or a full moon, with the temperature of the earth. If his conclusions are correct, farmers should disabuse themselves of an almost universal opinion that frosts are pretty sure to occur in the months of September and October, at the full of the moon. Ask any man about it, and he will tell you that we must look for a frost at the full of the moon in September, and if he can get by that, he expects his corn will ripen before another frost. Now whence this almost universal opinion? It does not seem hardly possible, that it can be a mere whim, yet it is possible that when

a frost *does* occur at the full of the moon, the coincidence is specially remembered by the farmer, and thus the exception is taken for the general rule.

As "J. A. A." has gone so far towards settling this point, the thought has occurred to me that if he would give us the connection between the occurrence of frost and the situation of the moon for the month of September only for a series of years previous to 1856, as that is the month more particularly noticed by farmers, and as it has been supposed that the last three years have been somewhat peculiar in regard to their temperature, it would pretty conclusively settle the whole matter.

His observations cannot fail of interesting every intelligent farmer, and I regret that I have not the same meteorological tables at command from which to make my own observations. It had long been an open question with me, which led me to introduce the subject into the columns of the *Farmer*. I could add no philosophical principle so as to combine theory with what I had supposed to be facts, and if I have provoked "J. A. A." to good works by setting forth the truth, I desire nothing more than to express to him my hearty thanks for what he has done, and remain,

Bethel, Me., Jan. 7, 1860.

N. T. T.

*For the New England Farmer.*

#### CURE FOR SCRATCHES IN HORSES.

FRIEND BROWN:—I saw an article in the *Farmer* of December 31, from your able correspondent, "Oak Hill," that gave a description and a remedy for "*Scratches in Horses*." I agree with him, that if one knows a remedy, he should make it public, as, indeed, he ought all knowledge that he thinks may be of value to his fellow-men. I felt the force of this when I received the information from you, and your several correspondents, in regard to making butter in winter, for which you have my hearty thanks.

But to return, when I worked at my trade, in the city, I had occasion to use different kinds of paints and oils, among them was what is called "bright varnish." Frequently I would cut myself, sometimes so severely that I have been laid up for weeks. I would try all kinds of salve, but the wound would be a long time healing. One day I cut my hand severely, and as I had nothing to put on it at hand, I thought I would try some of the *bright varnish*; as it is a sticky substance, I thought it might stick the wound together; accordingly I bound up my hand with it and kept on to work; the varnish relieved the pain, I had no soreness in the wound, and in one week it was entirely healed. My son was sawing through a board one day, and carelessly put his hand under the board. My son had his forefinger bone entirely sawed off. I put the ends together, put on this varnish, bound it up, and the result was, that after one week the bandage was removed, and the finger had nearly grown together. My horse once had scratches so badly, that it was difficult to get him to move about. I rubbed the parts affected with this varnish, for two days, which caused a perfect cure. The varnish can be bought at the paintshops for six or eight cents per quart. E. LEONARD.

New Bedford, January 16, 1860.

*For the New England Farmer.*

#### HOW I IMPROVE THE SOIL.

The farm I now occupy belongs to C. H. Leonard, Esq., of New York, and embraces a variety of soil, some quite sandy, some may be termed sandy loam, other portions gravelly, and quite stony, while we have some swampy peaty soil.

Mr. L.'s principal object has been to clear the stones out, build walls in place of wood fences, drain the wet places, and get in order for farming. This being the case, farming has occupied a secondary place, yet something has been done. Five years ago I found a farm of about forty acres, three-fourths of which was overrun with sweet fern, briars and bushes, the skinning process having been well carried out when cultivated, cutting only about three tons of hay, and that none of the best, and now twenty acres under improvement yield thirty-five tons of fodder the two past years, besides our corn, and the fodder from which, acre for acre, I consider equal to a hay crop of two tons per acre.

As the greatest portion of the farm is sandy and sandy loam, I have resorted to the use of ashes and clover to get as much vegetable matter incorporated with it as I could, and at the same time obtain a remunerating crop the same season. The process has been this: plow deep, take out all the stones likely to interfere with future plowing, dress with barn-cellar manure if corn is to be planted; if potatoes, equal parts of guano and plaster in hill; if to be sown with grain, and no ashes previously used upon the piece, ninety to one hundred bushels to the acre are put in, some oats and clover, three bushels of the former and twenty pounds of the latter, (western clover.) I cut the oats for fodder, as soon as they form the seed, never allowing them to ripen, as they will exhaust the fertility of the soil. By cutting the oats early, the clover gets a better chance to grow, often lodging the first season. Oats give two tons and upwards of the very best fodder to the acre, equal to any hay I ever used. The next season, the first crop of clover is made into hay from the twentieth of June to the first of July, giving about two tons per acre. The after-growth is generally as large as the first, and is plowed in, when in full blow, before it changes. I don't know as this is the best time to do it, but it is my practice. The following spring plow again, and sow as before, repeating the whole process, save the application of ashes, which I do not like to use too lavishly. In this way I have a clover crop to plow in once in two years; the soil seems rapidly to change its character, decided improvement is seen by the most sceptical, and I am much pleased with the result. J. COE.

Rochester, Jan. 12, 1860.

HAY AND BUTTER.—A correspondent of the *Ohio Farmer* boasts of having raised from one acre, at one cutting, 9,315 lbs. of timothy and red-top hay, for which he received the premium at the fair of Summit county; and that he has a cow from twenty-four and a half quarts of whose milk he made five pounds and ten ounces of thoroughly prepared butter—cow fed on hay and corn stalks, with a peck of soft corn per day.



*For the New England Farmer.*

# **FARMS AND FARMING IN CLAREMONT, N. H.**

MR. EDITOR:—I said to you in a former communication, that I might, at some future time, have something to say about my own Sugar River valley. But notwithstanding the hint I gave you in said communication, I should be almost tempted to relinquish the task, were it not that the granite hills, verdant vales and crystal streams, in the vicinity of this valley, are always invested with those charms on which memory fondly lingers, when travelling in other sections of New England. My remarks at this time will be confined to that portion of the valley which lies within the limits of the town of Claremont, as that part of it lying in the towns of Newport and Sunapee, has already been most ably noticed in a former number of the *Farmer*, by one of its editors, who, wherever he may wander, looks back no doubt with pride and longings to the days he has spent, and pleasures he has enjoyed, in this beautiful valley, and wherever he may roam, and fond as he may be of roaming, probably never finds the place which presents equal attractions.

Sugar River enters this town from the east, and flows on through this valley to the Connecticut, a distance of about eight miles from east to west, dividing the town near the centre, leaving almost equal portions on either side. The falls afford a water privilege of great value, and within the last twenty years, a large amount of capital has been invested in cotton mills, and other manufacturing establishments in the village. Twenty years ago, the village contained probably not more than three thousand inhabitants, but at the present time, they number near six thousand. The town has been settled over one hundred years, and is one of the best agricultural towns in the State, comprising as it does, a large amount of meadow, rich and productive, and in valuation, ranks, we believe, about the fifth in the State. That portion of the village called the plain, presents about the same appearance it did twenty years ago, while in other portions of the town, great changes have been wrought; in fact, nearly three-fourths of the village has been built up within the last twenty years, and if the march of improvement is still onward, Claremont will very soon become a city.

Scattered along this valley are a large number of young, industrious and independent farmers, who have taken the place of those who worked them many years ago, and they would as soon dispense with almost any other article of personal property, as the *New England Farmer*; they take it almost to a man, consequently, improvements are constantly going on; such, for instance, as ditching, underdraining, barn cellars, &c; while each one strives to excel the other in stock, implements, and crops of various kinds. So you see there is a continual effort for the best farm, the best stock, the best buildings and the greatest amount of wealth, and to accomplish their purpose, it becomes necessary to consult the *Farmer* weekly, which fact will explain to you, why you have such a list of subscribers in this town. That portion of Sugar River valley which lies in the easterly part of the town, is a beautiful tract of territory, and the view from the southern hills is truly magnificent; the bright river runs like a

natural mirror, while on the north, lies the old Green Mountain, cultivated almost to its summit, and on either side may be seen meandering streams with their crystal waters flowing on to the bosom of the beautiful Sugar River. The western portion of this valley is not so attractive, although it presents much that is beautiful. There are many young, industrious and wealthy farmers west of the village, who own extensive and productive farms, and who are themselves model farmers, but the view from the surrounding hills is not so delightful as that east of the village, notwithstanding it is all very beautiful.

W. C. A. CLINTON.

Claremont, Jan., 1860.

## **LEGISLATIVE AGRICULTURAL MEETING.**

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The fourth meeting of the series of the Legislative Agricultural Society was held on Monday evening in the Representatives' Hall at the State House, Hon. HENRY BISHOP, of Lenox, presiding. There was a very large attendance, notwithstanding the inclemency of the weather, and the gratification of the company was frequently expressed in hearty applause.

On taking the chair, Mr. Bishop addressed the meeting. He said he had to state to the company that he had not been engaged in agriculture, but had spent his life in the study and practice of another profession, yet he had a fondness for agriculture, and his tendencies led him in that direction. He then spoke of the Divine assistance vouchsafed to the farmer, and said that the Almighty gave every facility and made every arrangement for the prosecution of agriculture. The whole world is given to the agriculturist—the air, the water from the clouds, and the soil, are his capital—his bank, and no bank commissioner need be called to interpose in that direction. The conditions of agriculture, said he, are in the air, ground, light, heat and moisture; they are either the forces of the agriculturist, or they are the elements of his plan. The atmosphere contains most of the elements of vegetation. In this there is oxygen, nitrogen, carbonic acid, ammonia, and other elements not combined as necessary components, all being conditions of growth.

Mr. Bishop took exception to remarks made at a former meeting that a knowledge of science was not necessary to make a successful farmer. He said that as we work on the soil, all around, all above us aids us, and then science comes in play. The farmer, said he, must be more than an empiric. There are secret forces to be learned, gases to be understood which can neither be seen or felt, but which require a knowledge of science to give us their properties, qualities and effects. He then spoke of the different soils, silicious, calcareous,



&c., and showed by illustration the difference in soils, apparently the same to the eye, but which contained properties rendering them quite different in productiveness. He advocated the instruction of the farmer in these matters, expressing the pleasure it gave him to find that it was proposed by the present Legislature to take steps in this direction, and saying that any measure of this kind should have his hearty approval.

The speaker contended that the farms in Massachusetts were depreciating in value, and showed from the returns of corn, potatoes and sheep, in 1840 and 1850, that his argument was correct. This he attributed to the fact that the land had been despoiled of its fertilizing properties, and was not attended to. There might be lands about Boston that had increased in value and productiveness from the close proximity of, and easy access to the multitude of fertilizing compounds, but the reverse was the case of the great bulk of land in the State.

Mr. Bishop then spoke of females, and said he was in favor of giving them their appropriate rights—God had given them, and man had no right to circumscribe them. He said he did not allude to political rights, but thought that, though they were not allowed to vote, they exercised an influence we were not aware of. He alluded to gardens and orchards, and said that here they would be found the co-workers with man. Speaking of flowers, he passed in review the number of exotics introduced into England from the reign of Henry VIII. to George III., and showed that while under kings the number was insignificant, under the reign of queens it was very large. He said no one could deny that the garden was woman's especial sphere.

The speaker then passed to the subject to be brought to the attention of the meeting, that of Flax, and said he had not seen, for twenty-five years, a square rood of flax growing, but he was brought up among men who grew flax, and made a profit on it, and he remembered a farmer in the section where he lived, on coming to take his seat as a member of the Legislature, harnessing up his horses to his sled, and putting on a load of flax, which he brought to sell at the Boston market.

He said there was none cultivated here now, and the reason for this was not that it deteriorated the soil, for it did not; it was not for fear the crop would fail, for it never failed; but it was the expense of getting the flax prepared for market, the rotting and preparing the textile filament. It is a crop, said the honorable gentleman, worthy to be raised—a double crop—furnishing clothing for day and night, and food for the animal. Wheat and corn will not do this, and no animal will, except the sheep, (laughter) which furnished

food for the table, and clothing—indeed, said he, the sheep is to the animal world what flax is to the vegetable world (increased laughter).

The Chairman closed his remarks by introducing STEPHEN M. ALLEN, Esq., to the meeting.

Mr. ALLEN commenced by saying that many of the memories of youth which were gathered amid the rocks, hills and valleys of New England forty years ago, had come down to him with pleasant associations connected with the growth and manufacture of flax. The linen wheel, the warping bars and the loom were indispensable elements in the outfit of every farm-house, and the spinning and the weaving of the fibre among the most necessary accomplishments of the young farmer's wife. What boy, thus born, said the speaker, exists, who cannot remember among his earliest occupations the pulling and the spreading of flax, and his first perquisites of a roll of tow cloth, which he sold at the country store at 12½ cents per yard?

Such memories as these, coupled with the hardships and sufferings incidental to the life of the farmer's boy of that age of New England history, bring vividly before him, in whatever position he may be placed, his true condition—what he then was, what he now is, and what he ought to be. It was such memories as these which gave the speaker an interest in agricultural pursuits, and though thirty-five years and more had passed since he left the mountain glen where he was born, yet the old carol which was tuned on the mountain side from the head waters of the Saco, to move, as was supposed, the first flax spinning-wheel which was set up in New England, was as vivid before his mind's eye now as when a child eight years of age. These associations, to which he had alluded, together with the announcement in England that flax could be cottonized, led him to lay the subject before the Legislature of this State, of which then he then was a member, nine years ago.

The order presented was that the Committee on Agriculture collect such information as could be procured concerning the culture and growth of flax, and its probable substitution for cotton in the manufacture of cheap fabrics. Having been called on by the Chairman of this Committee to furnish such information as he could readily get on the subject, Mr. Allen furnished it at length, and it was printed for the use of the Legislature.

During the following year, said the speaker, it was pretty well demonstrated that the experiment of cottonizing flax in England was a failure, and his attention was given to a personal examination of the subject, in detail, of the mechanical and chemical construction of the flax fibre, in connection with building mills for its manufacture at Niagara Falls.

In the year 1854, the lecturer said he became

fully possessed of the opinion that the fibre of flax could be cottonized, but it was not until the spring of 1857, while engaged at Niagara Falls, that his experiments were satisfactory to himself. From that time the sphere of experiments was enlarged, and a boll of flax was sent to the bleachery of Mr. George W. Brown, at East Greenwich, R. I., and machinery was set up for working it. The process was found defective in the machinery department, for breaking and unstranding the fibre, and it has been by the inventions of Mr. Stephen Randall that this difficulty was removed. This gentleman has had much experience in the manufacture of flax, and he, together with Messrs. Sisson & Co., of Centreville, R. I., is entitled to the credit of the construction of the machinery now used in the manufacture.

In the spring of last year, the old machinery, together with the new, was brought to Watertown, in this State, and there, through the interest and liberality of a couple of gentlemen in Boston, it was set up, and the experiments continued, until now they have been successfully completed.—Through these experiments, said Mr. Allen, we are enabled to give to the world, as we think, a new article of manufacture, much desired and needed at the present time, the fibre of which can be grown on any soil or in any climate, affording the agriculturist sufficient profit to induce him to cultivate it extensively, while the manufacturer and consumer will gain by its adoption. It spins and weaves readily, on either cotton or woollen machinery, mixed with either of those substances in small or large proportion. The length of its fibre can be adapted to either cotton or wool, while the fabric thus made is stronger and more beautiful, and the cost is not increased.

The speaker then exhibited pure flax in its semi-bleached state, prepared by his process; flax in this state mixed with cotton; stockings knit from the flax mixed with wool; jean, composed of 80 per cent. cotton and flax, equally mixed, and 20 per cent. wool; satinete, the filling of which was composed of 25 per cent. of wool with 75 per cent. of flax; together with print, a portion of which was flax, all of which looked very well.

Mr. Allen then gave a history of the culture, uses and manufacture of flax, from the time of the early Egyptians to its introduction to this country by the settlers in Londonderry, N. H., where the manufacture of linen in 1748 had become so well advanced, and the cloth so noted, that the Provincial Government had occasion to grant the manufacturers the privilege of stamping their cloths to prevent counterfeiting. In 1638, said Mr. Allen, three brothers came from England, and settled at Exeter; two of these went back to procure machinery for flax manufacture, but were lost at sea, and a descendant of the third one com-

menced the manufacture of the article in 1775, on the banks of the Merrimack, but the war breaking out, he joined the army, and after fighting at Bunker Hill, and through the war, he returned to find his property destroyed. This man had several sons, one of whom he sent South to prospect, and another to New Hampshire. Soon the latter returned, and from his statement the family moved, and at the foot of the White Mountains, in 1790-94, were erected the first linen wheels that were ever turned by water, so far as the speaker had ever been able to ascertain. (Mr. Allen exhibited a well executed oil painting of this mill for the inspection of the audience.)

The manufacture of flax was continued here until the old man died, and the property eventually came into the hands of his eldest and youngest daughters, who carried on the manufacture. And here accident gave an idea in relation to the rotting of flax which threw much light on the mind of the old gentleman. He had been in the habit of storing flax in a small barn situated over a stream, and a bundle accidentally fell, or was placed in the water, and when it was taken out the rotting was perfect, and ever after water rotting was used. In England, this is done in pools in which the water is stagnant. It was said that the water in this White Mountain brook was, in old times, very poisonous to animals, and that split-footed beasts that drank of it would not live two years unless they were watered elsewhere; and this was attributed to an Indian curse; but it has since been ascertained, from an analytical examination, that the water contained mineral properties which have been turned to good account in the rotting of flax. The youngest of the ladies who carried on the mill, and who is now living, and has until recently been an extensive contributor to the agricultural papers of our State, has always insisted that flax could be made into cotton. This lady was the mother of the lecturer.

The speaker then alluded to the experiments made in Europe by Chevalier Clausen, and contended that he had not been able, to dissolve the gum resin, or glutinous matter, which causes the fibres to adhere together, while he, the speaker, claimed to have done this. He exhibited a specimen of old line flax, which he said brought 12 to 15 cents per pound, from the labor necessary to prepare it, which he said had a fibre apparently two feet long as seen by the naked eye, while, if examined by a microscope, it would be seen this was composed of short fibres overlaying each other, and confined by this resinous matter. He argued that the natural fibre of flax was only from 1½ to 2 inches long.

Mr. Allen then exhibited a machine for breaking unbroken flax, and said that by the use of this he did away with pulling and rotting, the latter

process injuring the fibres and changing the substance. After long line flax has been woven, said the speaker, it has gone through 36 processes, and in the bleaching he claimed the fibre was reduced to its natural length, and thus gets its fineness. In proof of this he referred his hearers to the examination of linen cloth, which shows the same length of fibre he claimed for it.

Chevalier Claussen's plan of cottonizing flax failed because it could not be spun on cotton machinery, and it was the purpose of the speaker and his associates to manufacture largely, but to mix with cotton and wool. To do this they could produce the fibre half an inch, or three inches long, this being governed by the distance at which the rollers were placed in the breaking machine, and thus both spin and weave on the ordinary cotton machinery.

Mr. Allen then spoke of the difference in construction of cotton and flax, the fibre of the former being flat, while that of the latter was tubular like wool, and he exhibited drawings from the magnifying glass to show this. From this he showed that the capacity to take coloring in dyeing was different, thus giving a great advantage to flax in mixing with wool. From this he passed to an explanation of the manner of taking away the resin or gum from flax, and said that electricity must have an agency in the process, as he had proved to a considerable extent, although he felt satisfied the half was not yet learned.

In conclusion, he spoke of the small territory necessary to raise sufficient flax for the supply of the country, and the profit to be made by raising it, and urged on the meeting the advantages to be gained by its more extensive culture.

In reply to a question by Mr. FLINT, Secretary of the Board of Agriculture, as to how long it would take to place coarse flax in the condition of the bleached exhibited by Mr. Allen, that gentleman said, that apart from the washing and bleaching, which would occupy a couple of hours, the flax could be converted from straw to cotton in half an hour, if dried by artificial heat, and that a machine for breaking, costing \$400, would break two tons of straw per day.

In answer to a question as to the relative cost of flax prepared in this way to cotton, he said that the cost was the same, as cotton was worth 13 cents per pound, and they were selling flax for 15, a saving being effected in waste in favor of flax of two cents per pound. In relation to durability, he claimed that the cloth made from flax prepared by his process, or what he call "fibrilia cotton," was as durable as that woven from the long fibre, as he knew that the long fibre, so called, was shortened in the bleaching process.

The lecture was concluded amid loud applause, and the company then crowded around the speci-

mens Mr. Allen had exhibited, examining them with much interest.

The subject for discussion at the next meeting is "*Agricultural Education*," and Hon. Richard S. Fay, of Lynn, is expected to preside.

*For the New England Farmer.*

#### ONION IN THE HUMAN EAR.

About a year ago I was troubled with a severe ear-ache, and tried all the remedies I could hear of, and at last, (being advised to do so,) I inserted the heart of a roasted onion; this alleviated the pain so much, that I tied a handkerchief over my ear, laid down and slept soundly. I had then had no sleep for nearly a week. I slept five hours; awoke and thought I would take my comforter out of my ear; but in endeavoring to do so it only served to crowd it in farther, and my ear felt so comfortable, I concluded I would let it remain for the time.

In the latter part of the summer, at times, I would be deaf in that ear, and within a month, by pressing my finger against the lower part of my ear, I found there was a hard bunch, which was very painful. This became very troublesome; I began to be alarmed, and was about asking medical advice. I had my ear "dug out" with a tape needle, and then put in some bitter-sweet ointment, and let it remain an hour. I then made a wash of castile soap and soft water, had it about lukewarm. Had that forced into my ear with a syringe. The third syringfull I had forced in, I heard a report like a pistol, and I found the heart of the onion which had been in my head a year, and had caused a sore there. When the heart of the onion came out, blood and matter followed. I continued to use the wash for my ear three times a day, and in three days my ear was perfectly well.

Thinking, kind reader, you might be afflicted in the same way, I take this opportunity of informing you of a remedy. A. WILLARD HALLOCK.

*Brooksville, Jan., 1860.*

#### NOTHING BUT A FARMER.

The idea is often expressed that the business of farming requires rather physical than mental activity. The editor of the London *Saturday Review*, after returning from a Cattle Show, gives expression to some reflections on the demands which modern agriculture makes on the mental powers of the farmer, from which we copy a paragraph.

Mere idlers are not the anxious, cautious heads engaged all the week in manipulating and admiring the scarifiers and reaping machines and steam plows in Baker Street. If farming is all that its extant instruments and implements betoken, it is among the most difficult of economical pursuits. The British farmer must be an accountant holding his own against Messrs. Quilter and Ball; for he must be able to get the exact cost of every bushel of corn raised on his fields, and of every beast and sheep consigned to the butcher. He must know what he wins and loses by every acre, and he must be possessed of the natural history

of every bushel of manure throughout its career of raw material, grass, beef or flour. In other words, the farmer must be a good arithmetician, something of a chemist, not unacquainted with animal and vegetable physiology, a practical mechanic, skilled in at least the theory of several branches of natural philosophy, possessed of that administrative faculty which can rule and attract subordinates, with moral qualifications which, to say the least of them, must embrace sobriety, punctuality, quickness, tact, and what is generally known by business habits. If the farmer is not this, he is nought; and the fact that the trade has compelled him to be this is not the least of its blessings. There is probably no class which the last quarter of a century has so much elevated and refined as that of the British farmer.

#### SAW-DUST AS A MANURE.

We are pleased to notice an increasing attention to the subject of agriculture, especially in this State. Scientific labor is being applied to almost every branch, and it is producing the desired results. Next to drainage, we think the most desirable object to be attained by our New England farmers is a sufficiency of manures to keep the land in heart. Nature has evidently provided for herself, and if man would follow out the teachings of nature he would find that her generosity knows no stint, if rightly taken advantage of.

We noticed, in last week's *New England Farmer*, a query propounded by an intelligent farmer of Orange, in this State, as to the value of pine saw-dust for the purposes of bedding cattle, and we feel tempted to give our experience. In the years 1855 and 1856, while residing on the homestead in the town of B——, Franklin county, Mass., we conceived a plan for saving the urinal deposits of the stock, and also to absorb the juicy part of the droppings. We had access to a large sawmill, about three-quarters of a mile from the barn, where large quantities of hemlock and other timber were annually sawed. We commenced carting saw-dust into the barn shed about the first of September, and continued it through the winter, filling up the large bay as fast as the hay was spent. Our plan for using was as follows: first, to cover over the entire surface of the stable floor to the depth of three or four inches with saw-dust, and for the convenience of the milch cows there was placed on the top of the saw-dust coarse brakes and spent corn fodder—this last was shaken up every morning and night, and replenished as often as necessary, and the entire stable cleaned out once a week. Under the cattle and young stock sawdust only was used. So thoroughly did this absorb all the urine and juicy substances that when thrown into the shed, the stable floor was as dry as the barn floor. The manure heap in spring gave 148 large ox loads—from sawdust 70 loads, muck 20. The manure was entirely free from heat—was so thoroughly pulverized that no fork was necessary to load it; and the crop of corn in the fall fully responded to the benefits of this treatment.

There is another valuable manure to be found around saw-mills, and we have often wondered, as we rode through Orange, Athol and Erving, that the farmers did not use it. We mean the ac-

cumulations about the log-way which have been rotting there for years. Nothing better can be added to the compost heap, especially for potatoes and the purposes of top-dressing.—*Commercial Bulletin*, Dec. 17.

*For the New England Farmer.*

#### IS FARMING PROFITABLE?

MR. EDITOR:—I was much pleased to see an article in your issue of Nov. 12th on the cost of farm products, for I fully agree with Mr. Pinkham that it is quite as necessary for the farmer to know the cost of what he produces, as it is for the mechanic. But I am not prepared to wholly endorse his statement, that the farmers of New England, as a class, are running behind hand at the rate of \$10 to \$15 for every acre of corn which they harvest, and "more so," on all other crops.

I think some of them have, at least, kept even with the world, while others have gained in dollars and cents, aside from raising a large family of healthy robust children, and yielding them an education that enables them to make the domestic hearth the loadstone of attraction, the seat of happiness, morality and virtue, or fits them to guide the noble ship of State with as much correctness and firmness of purpose, as the more delicately reared offspring of the merchant or millionaire.

Mr. P. says, "we make a positive loss of \$10 or more per acre on our corn crop, and the shrewdest Yankee that ever was made cannot figure it any other way." I do not profess to have any peculiar Yankee shrewdness, and yet I think that I can raise an acre of corn, and feed it out to stock, and make money by the operation. I will not guess at the matter, nor "mystify it by running one thing into another" so far but what any one can easily see through it.

Below Mr. Pinkham's figures he says, "Thus it will be seen that we have cultivated our crop in the most prudent and economical manner." Here, again, I must differ with him, for I do not consider it prudent, or good farming, to be at the expense of cultivating an acre to get the same number of bushels that should grow on less than one-half of it. Here are a few figures to show what, to me, seems a better way.

I will take, as an example, an acre that was planted with corn in 1858, and this year planted without manure except a compost of hen manure, and put it at the rate of one pint to the hill. Allowing the same wages per day that Mr. P. does, the land to be worth \$50 per acre, and the entire cost of the crop, interest, taxes and all, when the corn was in the crib, was \$23.94. The income was:

56 bushels of sound corn.....	\$56.00
20 bushels ears soft corn.....	5.00
Stover and turnips.....	15.00
Total.....	\$76.00
Making a net profit of.....	\$52.00

This crop, owing to the frosts and severe drought, was not considered a fair one, the same land producing 75 bushels per acre last year, of sound, shelled corn. These crops are not exceptions, although, perhaps, more than average ones, and farmers will invariably make a profit in rais-

ing a good crop, as the expense is but very little extra, except the manure, and here is the advantage which Mr. P. does not see, of feeding out the hay and grain, as it is the *manure* that makes the profitable crops.

When I read Mr. P.'s article I wondered that the farmers of New England had not all become bankrupt years ago; he says "they feed out their hay and grain at a loss of fifty per cent., to raise more at still another loss, and thus go on year after year." Still "we live, and move and have our being!" Let every farmer feed out his hay and grain prudently to good stock, and carefully save and apply his manure, and he will make more and more money every year; Mr. P. to the contrary, notwithstanding.

Now let us see if we can make our words good,—for figures are facts—and we do not want our "dollars and cents" to cost us too much. Take, for an example, 100 good ewe sheep, that can be bought for three dollars per head.

100 SHEEP.	Dn.
To cost at \$3 per head.....	\$300.00
To keeping 1 year at \$2.....	200.00
To washing.....	1.50
To shearing.....	6.00
To marking, carrying off wool, &c.....	3.00
To interest, and taxes.....	20.00
Total.....	\$530.50

	Cn.
By 400 lbs. wool, at 50c.....	\$200.00
By 75 lambs, at \$2 per head.....	150.00
By old flock on hand.....	275.00
Total.....	\$625.00

From which, allowing \$25 for use of buck, leaves a net profit of.....\$69.50

Now, if we feed the fifty bushels of corn we raised, in addition to the above cost of keeping, we shall get one pound more wool per head, raise twenty more lambs, and have our old flock worth nearly as much as when we bought them. Let us see whether we lose fifty per cent. by feeding out the corn we have got:

100 pounds more wool.....	\$50.00
20 more lambs, at \$2 per head.....	40.00
And the additional value of old flock is.....	25.00

Making a total gain of.....\$115.00

Thus giving the corn a dollar and cent value of \$2.50 per bushel, if judiciously fed out,—besides giving an additional profit of \$65 on the stock, as the extra value of the manure will fully compensate for the trouble of feeding out the grain. Thus I have a net profit of \$1,32½ cents per head for keeping the sheep one year. Rather different from raising calves, is it not, farmer Pinkham? These are not exaggerated figures, but what can easily be done by almost every farmer. To be sure, (as Mr. Pinkham says), "our business is extremely hazardous;" we may, sometimes, by accident, or carelessness, have a cow choke to death; by over-work we may spoil an ox; a horse, by reckless driving and poor care, may get foundered; a drought may reduce our crops; hail-storms may damage us; and if, through our neglect, our fences are poor, there is more loss than by all the other causes combined. And yet, brother farmers, we are not the only class that run risks. Does not the merchant sometimes lose his ships freighted with valuable cargoes? are not his warehouses, filled with costly goods, some-

times burned, or, perhaps, a clerk will step out with \$40,000 or so? And so of other cases.

Farmers do not expect to become millionaires, but if they manage properly, they are equally as independent, and no class enjoys that priceless blessing, health, better, or lives to a riper old age.

J. B. FREEMAN.

Lebanon, N. H., Nov. 25, 1859.

#### WHAT ENGLISH FARMERS WANT TO KNOW.

At a late meeting of the "Royal Agricultural Society of England," the following list of prizes for Essays was adopted. Possibly the republication of the subjects may furnish topics for brief dissertations to some New England farmers, who, if they should miss the "sovereigns," might enjoy the satisfaction of having stirred the minds of others in the right direction.

1. Fifty sovereigns for the best report on the agriculture of Berkshire.
2. Twenty sovereigns for an approved Essay on the best period of the rotation, and the best time of year for applying the manure of the farm.
3. Ten sovereigns for the best Essay on the alterations rendered advisable in the management of land of different qualities, by low prices of grain and high prices of meat.
4. Ten sovereigns for the best Essay on recent improvements in dairy practice.
5. Ten sovereigns for the best Essay on the proper office of straw on the farm.
6. Ten sovereigns for the best Essay on the amount of capital required for the profitable occupation of a farm.
7. Ten sovereigns for the best Essay on the conditions of seed-bed best suited to the various agricultural crops.
8. Ten sovereigns for the best Essay on the adulteration of agricultural seeds.
9. Ten sovereigns for the best Essay on any other agricultural subject.

For the New England Farmer.

#### PIPE FOR CONVEYING WATER.

MR. EDITOR:—I wish to take water from a well which is twenty feet deep, then carry it about one hundred feet on a level, to a pump. Can you, or some of your readers, inform me what kind of pipe is best to use, to carry it through? The water is good to drink, but rather hard, and I should not dare to use lead pipe; if the water was soft, I should put in lead, as I believe it is proved that soft water from wells, or any other source can not be injured by lead. Now what kind of pipe is best, wood, iron, glass, gutta-percha, or something else; and where can it be obtained? Also, please state something near the cost for one hundred and twenty feet, if it is not too much trouble.

Billerica, Jan., 1860.

A READER.

REMARKS.—Some of our readers are conversant with these matters, and we hope will give the information desired. It is information that will be valuable to many persons.

## USES AND VALUE OF MUCK---I.



DISPOSITION is shown by most persons to neglect the common blessings which strew their every-day paths, and to look at a distance, into their neighbor's field or manufactory, garden or study,—or into another town, or often a remote State, for them, where they fancy they may be obtained on easier terms than in their own fields, neighborhood or town. It was

undoubtedly this restless desire that prompted Pope's line, that

Man never is, but always to be blest.

The farmer has not escaped the infection, but too often sees in other lands and avocations those advantages which he imagines cannot be realized upon his own acres and around his own hearthstone. The rainbow of promise, to him, continually looms up in the distance, while the dark clouds of discouragement hang gloomily over his present paths. Happily, the light of science has in a considerable degree dissipated these clouds, and opened the way for new practices in farming, and better views of man's power over the materials upon which he must work. This light now illumines, in a greater or less degree, the whole civilized world, and even darts its rays into the regions of heathenism, and where men have not emerged from a state of nature. And while it has shaken despotisms, and opened pathways between nations, it has led the tiller of the soil to investigations whose results are more valuable to the world than all the gold of the "far Cathay," or of the later mines of the Pacific coast. He has found the idea which prevailed so long, and which was nearly universal, that *profit in farming* could only be realized in the possession of large tracts of land, was an erroneous one; that land, *capital* and *skill* should bear relative proportions to each other, and that where these proportions did not exist failure was the result, sometimes ending in mortgaged estates and bankruptcy. The common expression now, therefore, is, that he must seek a *higher* cultivation,

ON LESS LAND, BUT WITH MORE SKILL AND FERTILIZING AGENTS.

It was this idea that led to the inventions to which we have alluded, and which resulted in the discovery of a material on a large proportion of our farms eminently calculated to restore exhausted lands to fertility, and to produce once more something like the amount of crops they yielded when in a virgin state. This discovery, through all the New England States, especially, has considerably changed the aspect of the soil

and the crops, and connected with the idea of cultivating less land, but in a higher manner, has increased the property of the farmer to a degree which he had never before attained.

The value of farms in New England some thirty or forty years ago, was greatly depreciated by the presence of *bog* or *swampy* land, as it was considered nearly worthless for everything excepting the meagre timber or fuel which might be cut and hauled from it in the winter, or the scanty and coarse herbage it would afford to cattle during the time of short pasturage in our summer droughts.

The value of such lands has entirely changed, as where, at the former period, they would scarcely command five dollars an acre, they now bring from thirty to one hundred, and in the neighborhood of villages standing on plain or sandy lands, confer the greatest benefits in gardening, and are worth five hundred dollars an acre, provided the muck is of good quality, and the deposit is deep and of convenient access. Indeed, it is often said by those purchasing farms, that they would not enter upon one, unless it were well supplied with meadow muck, for it is this material and the barn-cellar, that, like the philosopher's stone, turn all they touch into gold. Though somewhat poetical, this language is not altogether extravagant; for on every farm in our knowledge where there is a good barn cellar, and the meadow muck abounds, thrift and prosperity are evident to every passer-by. Our range of observation has been somewhat extensive, and the use of muck has been the subject of our critical observation for many years.

These muck swamps were long avoided as a sort of tabooed territory, with scarcely sufficient tenacity to perform their part in "holding the world together:" in the winter, rabbits traversed them with their paths, and found feed in the bark of the young and tender shrubs, and in the summer, frogs croaked and slimy things disported themselves in security in their ancestral haunts. There snakes deposited their eggs in the rotten logs of an earlier growth, and from thence led their supple broods to the heated slopes and rocks to vivify and grow in the sun. Owls and bats came from their dark recesses in the twilight to feed on the denizens of the lighter and purer air, while the boy with his cows cast stealthy glances at the dark jungles, to see if ghosts and goblins were not issuing forth too.

## WHERE MUCK IS MOSTLY FOUND.

It is in these long abandoned swamps that this treasure, this vast acquisition to our national wealth, is mainly found. In some cases, they are bordered by precipitous or abrupt hills, and the deposit in the basin there is usually deep, finely

pulverized, and mingled in some measure with mineral matter from the hills. In others, the high lands rise gradually, or what is quite often the case, the swamp is bordered on one or two sides with broad plains of sandy land, once covered with pitch pines, and possessing within themselves the essential elements of grain crops for an indefinite period. This condition of things reminds the observer of the deposits of coal and iron which frequently lie side by side in coal and iron regions, divided, perhaps, by a narrow valley, or a diminutive stream. Such boggy swamps are not strictly soils, but the collections of organic matter, mainly contributed by successive ages, into which has been mingled from the higher lands, most or all the minerals in a soluble form.

Sometimes, muck of the best quality is found in narrow valleys, and on quite high ground; but in such instances it is rarely more than three or four feet in depth, and thinning down towards the edges of the valley to a few inches. This is usually black, of a slippery, saponaceous appearance, and so thoroughly decomposed, that the sense of touch can detect no fibre or grit when rubbed between the fingers. On examining it through a microscope of high power, the fibres may be seen, though exceedingly minute, and in endless forms. This muck is perhaps the most valuable of any found for all the purposes for which it is used. It is always accessible, and may be applied to the land with safety after having been exposed to atmospheric influences for a few weeks only. After being thrown out and becoming dry, it is friable, and falls into a light, fine powder, and in that state is one of the most greedy absorbents in nature. Instances have come to our knowledge where this class of muck has been transferred to grass lands with admirable effect, without any seasoning, or "cooking," as some farmers term it, or without any mixture with barn-yard or specific manures, ashes or lime. When thrown out in ridges it soon becomes covered with a rank growth of weeds, or coarse grasses, or, what often occurs, a luxuriant growth of the wild raspberry. These are evidences of its virtues which cannot be mistaken, and are sufficient to settle the question of value. In our own garden culture we have for years used this kind of muck on cultivated raspberries, strawberries, blackberries, currants and gooseberries with the most satisfactory results. We also apply it as a mulch about young pear trees and young nursery trees, and find that it prevents excessive evaporation, and protects the tender roots from the scorching effects of our hot summer suns.

On the margins of some small streams in Massachusetts, we have visited extensive tracts, made up of muck varying in thickness from one foot to twenty feet in depth. It varies also in quality.

These tracts are annually flooded in the spring, and succeeded by annual crops of coarse grasses which for many ages must have matured and fallen upon the spot, as there are no present evidences of a forest having stood there, though it is supposed they were remotely covered with a heavy growth of timber. They are almost always skirted by rolling hills on one side, and "pine plains" on the other; thus affording the farmer opportunity to reclaim the meadow itself, by drainage and an admixture of the gravel from the hills, or by transferring the muck to the sandy land, and restoring it to its original fertility. As in the coal and iron districts, nature has been affluent in her gifts to the husbandman in this particular; it is for him to seek her treasures, draw them from their hidden recesses, and make them bless the world, or mould them to his uses where they lie.

*For the New England Farmer.*

#### USES OF SEA-WEED.

For years I have been a reader of your valuable paper. Upon one subject I have seen very little written which we farmers on the sea-coast are much interested in, that is, *sea-weed*, for to that article we are mostly indebted for our hay crops. I find in the Fourth Annual Report of the Secretary of the Massachusetts Board of Agriculture, 1859, this subject is taken up by S. P. MABBERRY, of Cape Elizabeth, (to whom the readers of your paper are indebted for many timely hints.) He gives to the reader its office as designed by our holy Father, in the sea, and then its uses on the farm. More attention has been given within a few years in this vicinity to the hay crop than formerly; we find that two tons of hay can be produced from an acre of land, where we used to get but one; the extra amount more than paying for getting the land in a good state of cultivation. Many thanks to T. J. Pinkham for what he wrote relative to whether farming is profitable, as by that we have been enabled to get at the opinion of others. SENEX.

*Yarmouth, Feb., 1860.*

#### SCIENCE OF COMMON THINGS.

BY DAVID A. WELLS.

*Why do bubbles rise to the surface, when a piece of sugar, wood or chalk is plunged under water?*

Because the air or liquid contained in the pores becomes expanded by heat, and bursts the covering in which it is confined.

*What are the sparks of fire which burst from the wood?*

Very small pieces of wood made red hot, and separated from the log by the force of the air when it bursts from its confinement.

*Why does light, porous wood make more snapping than any other kind?*

Because the pores are very large, and contain more air than wood of a closer grain.

*Why does green wood make less snapping than dry?*

Because the pores, being filled with sap, contain very little air.



**CRANBERRY CULTURE.**

The following remarks in relation to the culture of the cranberry, were made at the recent session of the Maine State Board of Agriculture?

Mr. Dill said he had a small bog, in which there was a constant warfare between a species of laurel and cranberries. He cuts up the laurel, and uses it for banking to his house. After skimming off the surface, and carrying it away, he puts on sand. In the fall he flows, to defend from frost, and to keep the plants from being thrown out, and from a worm that infests them. He had procured plants from wild meadows, and from West Bridgewater, the Bell and the Cherry cranberry. He keeps the plants as carefully weeded as he does plants in his garden. He had tried carefully a few patches of the Bell that had produced at the rate of 150 bushels to the acre. He had the Bugle from Minnesota. He thinks pure, river sand the best article to use. The rows had better be two feet apart. They will not bear well till well matted. There is a finely bearing cranberry bed on a high, dry knoll near him. His natives do not do as well as those from Massachusetts and Wells. There is a high-bush cranberry growing near him, two kinds; one is well known, and the other is not. The latter is a few inches in height, and very pleasant to the taste. Some of these are now transplanted, to test the value for cultivation.

Mr. True had watched the cranberry culture closely. He had not felt well this fall when obliged to send to the western part of Oxford for cranberries, when we have everywhere plenty of bogs suitable for their culture. He spoke of a case where a man arranged a bog by plowing, &c., and then said to the plants and grass, "Go it, and see which will beat." He examined it at the time of fruiting, and he thought, without any culture, a pint bowl would cover enough to fill it. He knew of another place in Kennebec county, where less pains were taken, and greater success followed. Dr. T. obtained vines, and set them out, not in a suitable place, and in spite of frost, many of them were doing well. There are hosts of farmers in Maine whose bogs might be mines of wealth in this regard.

*For the New England Farmer.*

**PROFITS OF DAIRY FARMING.**

MR. EDITOR:—I have read with attention the statistics of your correspondents from Chelmsford and Westboro', on the "Profits of Farming." I have also seen the meagre statement of what was said, by the dignitaries of the land, at the first of the farmers' meeting, on Monday evening last. Now, sir, without in any manner infringing the facts stated by others, I am free to say those coming from Westboro' strikes me as nearest the mark. I have certainly known many cases, where a herd of half a dozen cows have yielded from their milk alone a profit of \$30 each, during the year. And if Mr. Quincy's view of the value of the manure that can be made from a cow, be at all correct, (and I know not why it should not be, as he is an honorable man, and the son of a truly intelligent, practical farmer,) then, sir, it is clear that the keeping of good dairy stock may be made a profitable business. The first experiment of the kind to which my attention was drawn, was con-

ducted by Col. JESSE PUTNAM, of Danvers, (more than forty years ago,) who still lives, at near ninety years of age. He made from seven cows, an average to a cow of 187 pounds of butter, in the course of six months, which sold for 25 cents a pound. On my father's farm I have known a product from cows quite as good as this, when I assisted in milking them, though I cannot state the particulars. **SOUTH DANVERS.**

**AN INTERESTING REVIVAL.**

Farming, as well as commerce and manufactures, has always had its periods of decline, revival and success, and these have been caused by the depression or prosperous condition of other business. When commerce and manufactures are paralyzed in any degree, the mechanic arts feel it at once; so the ship, house and store building, and all the various handicrafts, are paralyzed or suspended, and the attention of thousands is naturally turned to the soil.

The revulsion of 1857 had this result in some degree, and undoubtedly turned many to the country who had been engaged in trade or in the arts. But beyond all these contingencies, there is a sound, and what will prove a permanent revival and interest in the business of cultivating the soil; a higher appreciation of the sure and remunerative results of the occupation, and a deeper love for a calling which tends more than all others to promote health, to lead the mind to the highest contemplations of truth and duty, to save from the destructive tendencies of rapidly increasing wealth, or the equally rapid descent to poverty, and to ennoble and dignify our natures to the highest points of excellence and virtue.

The present is one of those periods when attention is turned in an unusual degree to agricultural life, and when inquiries are earnest and frequent as to what modes of farming will produce the most sure and profitable results. The action of the State Board of Agriculture in aiding the establishment and encouragement of farmers' clubs, is arousing the attention of all classes of people throughout the State. Under the auspices of the Board, we have recently visited several towns, and find that the people have taken hold of the work themselves, and have taken hold in the right way.

Early in January, we had the pleasure of visiting the farmers of Franklin, in Norfolk county, and of addressing them upon the objects which the Board of Agriculture have in contemplation. We scarcely know whether farming is the leading pursuit in this town, as there are five manufactories of bonnets in the village, employing about 200 females and 100 males. Many of the bonnets, however, are made in the families of this and the neighboring towns. By far the greater portion of

the persons employed are of this description, and number about 900. The amount of sales is \$400,000 annually. All kinds of bonnets are made. The stock of most of the "lace" or fancy hats is imported from England, Italy and Switzerland. The nicest laces, made of horse hair, come from Switzerland, made of hair imported from South America at prices almost fabulously cheap, showing that the wages of those who manufacture them must be at the starvation point. The most expensive and fashionable bonnets are made, however, by Yankee girls, of rye straw. The names of the firms are A. E. Daniels & Son, H. M. Green & Baker, Davis Thayer, Jr., A. H. Morse & H. C. Fisher.

Franklin was once, we believe, an agricultural town of considerable note, but for several years past her farming interests have shared but too largely in the general decline, aggravated no doubt by the superior attractions which the manufacture of straw has presented to the young men. There are encouraging signs, however, that farming has reached its lowest point, and that it has already begun to ascend again. Among those who have aided in this good work are Dr. OLIVER DEAN, who, after a life of successful enterprise, has returned to his native town, purchased a farm and is showing his neighbors the value of scientific farming; Dr. S. ARWOOD, who has been turning his attention to stock-raising; E. A. METCALF, who has entered somewhat largely into reclaiming waste lands with great success. Dr. E. A. MILLER, of Dorchester, a native of this town, has entered upon the culture of the *cranberry* on a large scale. He has some fifteen acres of meadows which he can cover with water in two or three hours, so as to protect them from frost or from the *cranberry worm* when the young fruit has just set. He has expended some \$7000 in his operations. The plants are just beginning to return to him something of this outlay. Last fall he gathered 80 or 90 barrels, which, at the high prices *cranberries* commanded, paid a handsome return on the cost. Mr. WHITING METCALF has entered somewhat largely and successfully upon the enterprise of transplanting forest trees, mostly pines.

A *Farmers' Club* has been formed, and an eligible room fitted up for its accommodation, and it has a library of well-selected agricultural books. In this room is the identical library given by Dr. Franklin, in 1786, for the honor conferred on him of calling the town by his name.

Several distinguished men have originated in Franklin, and among them Hon. THERON METCALF, of the Supreme Court; the late Judge EMMONS, of Maine; HORACE MANN and Prof. FISHER, of Yale College, who gave promise of being one of the most distinguished mathematicians of

our country, but who died young, being lost by the wreck of "The Albion," on the coast of Ireland, in 1822.

Hon. JABEZ FISHER was a citizen of Franklin. He was for more than fifty years a deacon of the church, and for about twenty years he represented the town in the Legislature of the State, either as a member of the House or of the Senate, or of the Governor's Council. He was prominent in the days and deeds of our revolutionary struggles, and is said to have originated the oft-quoted phrase—"The times that tried men's souls."

We intended to speak of visits to Waltham, North Wrentham and Southboro', but have already occupied all the room we can spare at present.

*For the New England Farmer.*

#### FARMERS' CLUBS AND AGRICULTURAL FAIRS.

MR. BROWN:—I saw in the *Farmer* a communication from Mr. Flint, stating that towns wishing to form clubs can have assistance from an agent sent at the State's expense. I regret that our farmers are not capable of forming clubs for themselves. Farmers' clubs are useful, and where farmers take an interest in farming, they will meet and form clubs without any assistance from the State. The majority of farmers of this State do not want any aid from a source they are taxed to pay for; what we want most is to lessen our taxes. We are spending a large amount of money every year on our county societies, which were intended to benefit the farming community, but, I am sorry to say, are doing but little good, under the present management. Those societies have expended large sums for land and board fences to pen up all manner of exciting shows, to entice young and old to go in and pay their quarters to see the sights they have collected, and so we are taxed twice to see what does but little good. The working farmer gets but little of the premium money. Most of it is taken by men of large means who have bought farms that have been improved by good farmers, and our societies are managed principally by such men.

Market fairs have been much talked about of late. I have thought very favorably of them, but I do not think they will remedy all the evils that some do. As to speculators, or middlemen, they can buy at market fairs as well as others. But the middlemen are not so much at fault as many think they are; for the consumers' way of living is such at the present time that, if it was not for the middlemen, I think some of them would go without their dinner, for a large part of them live from hand to mouth. As the fashions were once, when professional men and mechanics laid up their winter provisions, market fairs would have been a help to both farmer and consumer. But our sons and daughters are not educated to know how to live; they are kept at school till they lose their health, and then what they learn is of but little practical use. A large part of them who get married at the present day would not know what to do with two or three months' pro-

visions, if they should happen to have so much at one time.

Some persons inquire what has caused the interest now taken in farming? I say in answer that it is the increased reading of agricultural publications, and town agricultural societies and clubs. Where we see a farm under good cultivation, and all kinds of fruit trees that look healthy, we can safely say that farmer reads, and most likely the *Farmer* is one of his papers, together with some good books. I attribute my success in farming considerably to this. G. S.

*Leominster, Mass., Jan., 1860.*

*For the New England Farmer.*

#### CLUB-FOOTED CABBAGES.

I notice in the last number of the *Farmer*, an article from the *Michigan Farmer* on the subject of club-footed cabbages. It appears to me the writer is somewhat fanciful in supposing that the cabbage, in a strait for moisture, attempts to imitate the bulbous rooted vegetables to avoid the effects of the drought, and so assumes a club foot. In my youth, I was familiar with club-footed cabbages, as they were a constant pest in my father's garden; that garden was far from being a dry one. I scarcely ever knew it to fail on that account. That fact weighs strongly against this Michigan theory. Our garden was an old one, and used as such a long time. We could not depend on getting healthy cabbage plants in the garden, and had to use a patch of new ground in some other place, or depend on our neighbors. Frequently, good healthy plants set in that garden would become club or pumple-footed, as we used to call them. We then attributed this tendency to club foot to its being old in cultivation, and filled with some worm or maggot that got into the root of the plant and irritated it so as to produce the club; like the sting of an insect in an oak leaf, which produces oak apples, so called. These apples are well known to be nurseries of a numerous progeny. So the sting of a Canada plum will produce a long, leathery, purse-like covering of a new race of the insect.

I have of late years seldom noticed the club foot in cabbages, but I have seen some once or twice in my garden in a very moist place. I do not remember of examining the club feet to find the grub that caused them, but the impression was so deep and general that no such examination was thought necessary. I have supposed that the grub or fly that deposited the egg so common sixty years ago, might, like many others, have become temporarily extinct, or nearly so, in certain localities, and would, like the caterpillar or canker worm, again at some time renew their mischief.

This Michigan writer, if he observes carefully, will find this supposed expedient of the cabbages to gather moisture by means of a club foot to be a total failure, as the first indication of this disease is the wilting of the plant in a hot sun, while the healthy plants, with their natural fibrous roots, look green, and are indeed in the height of their thrift. So much for theory, not sustained by facts.

RUFUS MCINTIRE.

*Parsonsfield, Me., Jan. 2, 1860.*

#### MASS. STATE BOARD OF AGRICULTURE.

The Massachusetts State Board of Agriculture had a session at the State House in Boston, commencing on Tuesday, Feb. 1, 1860, nearly every member being present. An earnest spirit seemed to animate the whole Board, and various topics were introduced, discussed and decided upon. Mr. ATWATER, of Springfield, reported upon the subject of *Root Crops*. Mr. R. S. FAY, of Lynn, read a report upon *Agricultural Education*, which led to a most interesting discussion on the subject, and clearly showing that this matter is considered of vital importance, to secure a better understanding of the principles and laws which govern the art, and upon which its general prosperity and profit depend. Dr. LORING, of Salem, offered the following resolutions, which were adopted with great unanimity:

*Resolved*, That the Committee upon *Agricultural Education* be and hereby are authorized to obtain an elementary manual of agriculture for the use of our common schools, to be submitted to this Board for approval.

*Resolved*, That the said Committee be requested to cause to be introduced the aforesaid manual, when approved by this Board, into the common schools of Massachusetts, in the manner provided for the introduction of school books by the laws of the Commonwealth, and that said committee be authorized to apply to the Legislature for the passage of an act for the accomplishment of this object. The committee entrusted with this duty are Messrs. R. S. FAY, of Lynn, M. P. WILDER, of Dorchester, SIMON BROWN, of Concord, G. B. LORING, of Salem, and JAMES FISHER, of Fitchburg.

Mr. CHARLES G. DAVIS, of Plymouth, made a carefully drawn report upon the subject of *Market Days*.

At a meeting of the Board, Jan. 5, the following preamble and resolution were passed:

*Whereas*, it is made the duty of the State Board of Agriculture, among other things, to make such suggestions to the Legislature, with regard to the interests of agriculture, as may seem advisable,

*Resolved*, That in the opinion of this Board it is not expedient to incorporate any more societies receiving the bounty of the State.

#### WINTERING STOCK.

The following report of a discussion of this topic, at a meeting of farmers in Milford, N. H., is furnished by the editor of the *Journal of Agriculture*:

Zebediah Abbott, of Wilton, mixes good and poor hay together, instead of feeding separately, and believes it pays well. Thinks stock should come out better, or as well, at least, in spring as they were in the fall. Will use his straw to mix with his hay as he puts it into the barn next summer—stock will eat it all clean. Keeps cows—feeds them in the morning with hay and turnips—turns out at eleven—ties up at three P. M., and feeds hay; at dark feeds with shorts, cobmeal and cotton seed, mixed and cooked in scalding water. It is a good cow that gives seven quarts of milk a day during winter. The speaker wished to know if more Indian meal should be used. The President said that enough Indian meal should be fed to keep the cow in good flesh and in good heart.

Mr. Hazeltine, of Amherst, said he raised young stock, and wished to learn the best way of keeping it. Don't believe in starving stock; is in fa-

vor of cutting feed, especially straw and corn fodder, and believes it pays; it also pays to wet the feed—it makes it more like pasture feed in spring and summer; is in favor of roots—they moisten the dry feed; thinks farmers should try them—try experiments.

Col. Wilkins, of Amherst, said he feeds out much meadow hay. Feeds three times in morning, and three at night; likes roots—prefers the mangold; keeps stock out of doors from ten to three, P. M.; wished to know if stock can be kept on good hay entirely, and come out in good flesh in the spring? The President thought it would, if properly fed. Feeding has much to do with the health of stock. Cuts his butts and poor hay, and mixes them together.

Mr. Hazeltine said stock should gain in winter—no farmer should be satisfied to have it fall away—it is a dead loss; should feed grain—not sell hay, but feed it out.

Levi McIntire, of Milford, thought it would do to buy manure and sell hay. Farmers should save all their night soil. Never allows an animal to go down on his hands. Thinks cut feed good for some horses, and bad for others.

J. Cleaves, of Mt. Vernon, don't like work well enough to cut hay; don't want poor hay all eat up—wants enough left for litter. Feeds poor hay and turnips. No trouble in having stock come out in good shape in spring; should be stabled most of the time.

Levi McIntire said a frequent change of feed is good; stock does better to keep it still.

J. Cleaves thinks old meadow hay the best—the older the better. Meadow hay kept till four years old is as good as money at nine per cent. Gives oats to oxen in the spring, especially hot-natured ones.

#### MAINE BOARD OF AGRICULTURE.

The *Maine State Board of Agriculture* recently held a several days' session in the State House at Augusta, elected officers, transacted other business, and then discussed several leading agricultural subjects, among which were. "*What measures can be adopted to secure a uniform annual profit in farming?*" "*On the composition of soils, and on the preparation and application of Manures.*" Several other important topics were presented as being worthy of careful consideration. In the course of discussion, Mr. ANDERSON, from Cumberland, said that there had been more improvement in that county resulting from the influence of the county society, than in any previous year. Draining had been followed more than ever, and with good results. A manufacturer of tile in the county found it difficult to manufacture fast enough to supply the demand. He spoke of the great destruction of sheep by dogs. Mr. CUSHMAN said he had lost \$200 at least in sheep, by his neighbors' dogs. Mr. WASSON, of Franklin, believed that more sheep were killed by dogs than by all diseases and all other animals put together—dogs are the greatest obstacles in the way of sheep husbandry. Mr. LANCASTER, of

South Kennebec, thought sheep raising as profitable as stock. Mr. HAMMOND, of Piscataqua, said a lawyer commenced farming in his vicinity many years ago, and has beat the whole county, as a farmer.

The subject of the *Cranberry* and the *Grape*, was discussed, and many interesting points introduced. Mr. MARTIN, of West Danville, said that in applying manure, he thought the nearer the top of the ground the better.

The discussions seem to us to have been animated, and included many points of great interest. The views generally expressed were eminently practical, and will be likely to attract a new interest in the Board. The following is a list of the officers:

President—HON. ISAAC REED.  
Vice President—JOHN F. ANDERSON, Esq.  
Secretary—S. L. GOODALE, Esq.  
Messenger—FRANCIS FULLER.

#### EXTRACTS AND REPLIES.

##### MEADOW HARDHACK—IRON GRIST MILL.

Can you, or any of your correspondents, inform me how to rid a meadow from a bush called hardhack? What kind of grain will grow most profitably on a meadow composed of black muck about one foot deep, then of white sand? Will it be good economy to plow deep enough to mix the sand with the muck?

Also, the price of the portable iron grist mills, of both sizes, that were illustrated in Vol. XIV., No. 10, of the *New England Farmer*, and monthly for 1859, page 198.

Roxbury, Me., 1860.

A. W. T.

REMARKS.—Drainage and cultivation will drive the "hardhack" out. From what we can judge of your meadow, by what you say of it, we should think the best course to take would be to plant it with potatoes one or two years, and then lay it down to grass. Such lands are not usually adapted to grains. A little of the sand you speak of mixed with the surface soil will be advantageous.

The Portable Iron Grist Mills are for sale, we believe, by Nourse, Mason & Co., Quincy Hall.

##### SICK CATTLE.

In last week's *Farmer* I read the account of Mr. Cheney's loss of cattle. It may be that the passage through the manure becomes inflamed and dry, so that nothing can pass it. A remedy for all kinds of stoppage, or bloat from any cause, is, vinegar and chalk. One pint of vinegar, and chalk the size of an egg, pounded fine. It must be administered quick, for no bottle is strong enough to hold it when mixed.

E. POWERS.

Brimfield, Mass., 1860.

REMARKS.—We know nothing of the remedy prescribed above, and suggest that it be resorted to with great caution, and never without the advice of some person pretty well acquainted with managing stock. Vinegar and chalk may seem to

most of us a simple mixture, but the chemist may see in it the most decided elements of destruction.

#### QUALITY OF MILK.

My attention has been arrested by a discussion between "Norfolk," and "Suffolk," as published in the *Transcript*. It is, indeed, an interesting topic, though I thought it had been very satisfactorily settled, by the authority of Mr. Secretary Flint, in his work on "Dairy Farming." I take the liberty to suggest this might be a useful subject for discussion at one of your Legislative Agricultural meetings.

I remember when I used to milk cows, my mother, who was a well-skilled manager of a dairy, could readily judge of the feed of cows by the quality of their milk. In fact, she would detect a change of pastures in the course of one week. Now, if this difference from the variation of feed on a farm was so great as this, that an artless woman could detect it unerringly, with no other lactometer than a skimming shell and a churn, is it not strange that learned chemists should be bothered in prescribing rules for determining whether or not milk has been adulterated?

Jan. 25, 1860.

ESSEX.

#### CROPS IN ILLINOIS.

Distance alone prevents my laying some specimens of our "Egyptian" fruits and vegetables upon your table. My largest sweet potato from the garden last fall weighed 7 3/16 lbs., when clean washed, and several others 3 to 5 lbs. each.

The birds here will eat strawberries, raspberries, grapes, &c., to our great annoyance. They even indulge their appetites upon our early peaches, which we begin to enjoy about the eighth or tenth of July. Your city and vicinity consumes quite a quantity of extra white flour from this place, but the best quality, I am told by our millers, does not pay quite as well in your market as the No. 2 brand.

J. H. JONES.

Chester, Ill., 1860.

#### SUBSOIL PLOWS—BONE FOR MANURE.

Will you inform me where I can get one and two horse steel subsoil plows, Mapes' pattern, and at what price?

Also, dry ground or crushed bone for manure, in small quantity, say eight or ten hundred pounds, and the price?

A. L. PATRIDGE.

Peacham, Vt., 1860.

REMARKS.—The price of the plows inquired for above is \$8 for the small size, and \$11 for the large.

Dry ground bone for manure is \$25 a ton. These articles may be found at Nourse & Co.'s, 34 Merchants' Row, Boston.

#### WORMS IN HORSES.

I wish to inquire through the columns of the *Farmer* what will cure worms in horses. By giving such information you will oblige.

Candia, N. H., 1860.

M. VARNUM.

REMARKS.—See *Farmer* of last week in answer to "Subscriber, Exeter, N. H."

For the New England Farmer.

#### CONGRATULATIONS—BEES—WARTS—COAL-ASHES.

*First*—I congratulate the publishers of the *New England Farmer* in their success in getting out from week to week one of the very best agricultural papers published in this country. Its extended and increasing circulation, if nothing more were wanting, is proof of this. Its varied contents are wholesome, sound and practical, both in its farm and moral character. If there be those who question this, I ask them to compare the *Farmer* with any or all other agricultural papers they please. "By their works ye shall know them."

*Secondly*—Those persons who have bees should not neglect to examine each and every hive during such weather as we have had during the past few weeks. See that there is not too much moisture in the hive, and if so, give the bees more air, and keep the hive as free from filth and dirt as possible. In case I find any of my bees getting short of food, I take some of the warmest days and put in a few spoonfuls of honey and let it run down anywhere among the bees. Last winter I kept two swarms alive by now and then putting up between the combs a few sticks of pure sugar candy, and renewing it when eaten up. Bees are very fond of this. I am well satisfied that most persons, except the really experienced, who keep bees do not give them air enough. My way is, to give them air enough, so as to prevent any accumulation of moisture on the inside—not wholly—for this cannot be done with safety to the bees in cold weather, but to admit all the air which safety to the bees will admit of. The past season was a bad one for bees in this section; out of six stocks with which I begun in the spring, and all in good condition, I did not get a swarm, and only about fifty pounds of honey. Such luck is unusual.

*Thirdly*—Warts—I have seen, of late, inquiries in the *Farmer* for a remedy to remove warts from cattle. I have often done this by rubbing them every day with whale oil. From one trial with rosin oil it did the work quicker and more easily than whale oil. I have found turpentine, such as may be gathered from the ends of green pine logs—one of the very best remedies for removing warts, either from cattle, or on man, that can be found. Gather enough to cover the wart and bind it on the part, and let it remain for two or three days, and the wart will come off, root and branch.

*Fourthly*—It will take a long time before any person can convince me that there is no virtue in coal ashes as a manure, particularly for grass land; and if the soil is light and sandy, so much the more and better will be its effect. Let those who doubt this make a pile of it in any grass field they please, and if the grass is not larger and more thrifty about the pile than where there is no ashes, then I give it up.

N. Q. T.

King Oak Hill, Jan., 1860.

BEST FOUR GRAPES.—"The Grape Growers' Association" of Hartford, Ct., at a meeting, Jan. 10th, recommended the following varieties for general cultivation, in the order in which they are named: Diana, Hartford Prolific, Isabella, Concord.

## FOUR OF THE GRASSES.

Through the kindness of Mr. Secretary FLINT, we are enabled to present the reader with illustrations of four of the grasses common to our New England farms, and just in season to bring them to mind in order to make preparations for spring sowing. The description of these grasses we copy from FLINT'S "*Grasses and Forage Plants*," a book which every farmer who wishes more thoroughly to understand his business ought to possess.

Before the season for sowing clover, we intend to give four more varieties, viz.: the *Timothy*, *Meadow Foxtail*, *June*, or *Kentucky Grass*, and the *Meadow Fescue*.

## RED TOP.

This valuable grass, so common in all our cultivated fields, has been an inhabitant of our soils



for more than a century. It is of somewhat slow growth, but of good or medium quality. It is suited to moist soils, though common to all. This grass is probably rather overrated by us. It makes a profitable crop for spending; not so large a crop is obtained as from *Herdsgrass*. It is a good permanent grass, and consequently well suited to our pastures, standing our climate as well as any other grass. It should be fed close in pastures, for if allowed to grow up to seed, the cattle refuse it; this fact seems to show that it is not so much relished by cattle as some of the other pasture grasses.—The fact that stock eat any grass greedily in the spring, is no proof of its excellence, or nutritious qualities; since then

all grasses are tender and full of juice, and many varieties of both grasses and shrubs are readily

eaten, which at a more advanced stage of growth are refused.

This grass goes by various names, and is greatly modified by soil and cultivation. On a moist, rich soil, it grows larger than on a poor thin soil, and not only larger, but has a darker, purplish color, with a stem varying from eighteen inches to two feet or two and a half feet high; while on thin, poor, gravelly soils, it seldom grows over twelve inches, and often not over five or six inches high, while it has a lighter color.

## ORCHARD GRASS.

Orchard grass flowers in dense tufts. Its stem is erect, about three feet high. Root perennial.



Flowers in June and July. Not uncommon in fields and pastures. This is one of the most valuable and widely known of all the pasture grasses. It became, soon after its introduction into England, an object of special agricultural interest among cattle feeders, having been found to be exceedingly palatable to stock of all kinds. Its rapidity of growth, the luxuriance of its aftermath and its power of enduring the cropping of cattle, com-



mend it highly to the farmer's care, especially as a pasture grass. As it blossoms earlier than Timothy, and about the time of red clover, it makes an admirable mixture with that plant, to cut in the blossom and cure for hay. As a pasture grass it should be fed close, both to prevent its forming thick tufts and to prevent its running to seed, when it loses a large proportion of its nutritive matter, and becomes hard and wiry. All kinds of stock eat it greedily when green.

Judge Buel, distinguished as a man of taste, said of this grass. "I should prefer it to almost every other grass, and cows are very fond of it." Elsewhere he says: "The American Cocksfoot or Orchard Grass is one of the most abiding grasses we have. It is probably better adapted than any other grass to sow with clover and other seeds for permanent pasture or for hay, as it is fit to cut with clover and grows remarkably quick when cropped by cattle. Five or six days' growth in summer suffices to give a good bite. Its good properties consist in its early and rapid growth, and its resistance of drought; but all agree that it should be closely cropped. Sheep will pass over every other grass to feed upon it. If suffered to grow long without being cropped it becomes coarse and harsh. Colonel Powell, (a late eminent farmer of Pennsylvania,) after growing it ten years, declares that it produces more pasture than any other grass he has seen in America. On being fed very close, it has produced good pasture after remaining five days at rest. It is suited to all arable soils. Two bushels of seed are requisite for an acre when sown alone, or half this quantity when sown with clover.

Orchard grass is less exhausting to the soil than rye grass or Timothy. It will endure considerable shade. In a porous subsoil its fibrous roots extend to a great depth. Its habit of growth unfits it for a lawn grass. Its seed weighs twelve pounds to the bushel, and to sow alone, about twenty-four pounds to the acre are required to make sure of a good crop. It should not be sown alone except for the sake of raising the seed. It is worthy of a much more extended cultivation among us.

#### WHITE CLOVER.

White clover is widely diffused over this country and all the countries of Europe. It is indigenous probably both to England and America.



When first cultivated from seed collected from wild plants, at the beginning of the last century, it was recorded of a farmer that he had "sowed the wild white clover which holds the ground and decays not." Its chief value is as a pasture grass,

and it is as valuable for that purpose as the red clover is for hay or soiling, though there are some who place a low estimate upon it. It easily accommodates itself to a great variety of soils, but grows most luxuriantly in moist grounds and moist or wet seasons. Indeed, it depends so much upon a general distribution of rains through the season, that when they are sufficiently abundant it comes in profusely even where it was not observed in other years, and hence such seasons pass under the term of "clover years." It is not apparently so much relished by stock as from its sweetness we should be led to expect, but it is, on the whole, to be cherished for permanent pastures, and improved, as it undoubtedly may be, by a proper selection and culture of varieties.

#### RED CLOVER.

Red clover, though not properly included in the family of grasses, is now not only extensively cultivated, but is found to be one of the most valuable and economical forage plants. It belongs to the pulse family, or *leguminosae*, which includes the larger portion of forage plants called artificial grasses, in distinction from the gramineae, the true, and often called the natural grasses. The generic name, trefoil, or trifolium, is derived from the Latin *tres*, three, and *folium*, a leaf; and the genus can generally be very readily distinguished by the number and arrangement of its leaves in three leaflets, and flowers in dense, oblong or globular heads.



Clover is very properly regarded as a fertilizer of the soil. The action of its long and powerful tap roots is not only mechanical—loosening the soil and admitting the air—but also chemical, serving to fix the gases important to enrich the earth, and when these roots decay they add largely to that black mass of matter we call the soil. It serves, also, by its luxuriant foliage, to destroy annual weeds which would spring up on newly seeded land, especially after imperfect cultivation.

Another great advantage in favor of the cultivation of clover consists in its rapid growth. But a few months elapse from the sowing of the seed before it yields, ordinarily, an abundant and nutritious crop, relished by cattle of all kinds.

Clover seed should always be sown in the spring of the year, in the climate of New England. It is often sown upon the late snows of March or April, and soon finds its way down to the soil, where, aided by the moisture of early spring, it quickly germinates and rapidly shoots up its leaf stalks.



*For the New England Farmer*

### A SHORT TALK ABOUT SHEEP.

Sheep often become breachy from carelessness. It does not require remarkably good fences to turn them. I have kept sheep for 20 years or more on land fenced almost entirely with stone walls, and find no difficulty in keeping them quiet and orderly. In the first place, select those that have not learned to jump; have all gaps properly repaired, and fasten the bars so that the sheep can not rub them down. As a rule, look at each flock once a day at least, and see that the fences are kept up, and give them enough to eat, and my experience is that sheep will not learn to jump. Sheep have long been a favorite stock with me, and for the last ten or twelve years South Downs have been the sheep. I have found that 50 ewes well kept will generally raise 75 lambs; mine have frequently done better. The past year I raised 110 from 72, and part of the ewes were quite young, and the lambs dropped early. After they are two years old the ewes are very apt to bring twins, so that in some flocks twins seem to be the rule and single ones the exception.

I often see notices of the best breed of sheep. Perhaps there is no one breed best for all farmers, yet the Downs, I think, are destined to occupy a large space in New England. They are not so large as the Leicester and long woolled breeds, but I think they are more hardy, and sufficiently large for our soil and situation. The fine quality of the mutton is universally acknowledged, and they often attain a very respectable size. I keep mine in pretty good sized flocks, and the largest lamb I ever owned I think weighed 139 pounds. I have this winter weighed one that brought up 119 lbs. readily. Others may have them larger. I have not had extra size particularly in view, but expect to have yearlings next autumn that will weigh 140 to 180. I have sold 60 for breeding purposes the past year; slaughtered 5 at home, and sold 31 to the butcher. Bought one and lost one lately, and have now on hand 14 more than I sheared. Breeders of the best sheep must look to their laurels, for the South Downs will most assuredly make their mark pretty high on the list of good stock.

AQUIDNECK.

*For the New England Farmer.*

### WHERE TOMATO KETCHUP COMES FROM.

"Do you ever have anything cheap in your line that will answer for hog feed?" I inquired, of a Boston dealer in country produce, the other day. "Yes," he replied, "we oftentimes have waste potatoes, sometimes waste beans, waste cheese, and in former years I have sold large quantities of dried apples after they had become of a venerable age, at as low a figure as one cent a pound." "Have you any for sale at present?" I inquired. "No, bless you," said he, "we dealers have a better use for them now-a-days; we make them into tomato ketchup. I myself have made it by the ton with not a tomato in it; nothing but dried apples!" What a humbug this honest looking man is, was my instantaneous thought. But Chemistry here interposed, and said, "Not so fast, not so fast! What's in a name? Is not the characteristic acid of the tomato and the apple the

same? viz.: malic acid; and in dried or preserved fruits is not the flavor dependent almost wholly on the characteristic acid, most of the more delicate flavors of the fresh fruit being too subtle to be retained by such processes? Now the quantity of malic acid in the ripe tomato exceeds that in the ripe apple; but when the apple is dried, and particularly when it becomes very dry by age, and the acid thus greatly concentrated, may not the proportionate difference be lessened, and thus in all essential characteristics your apple ketchup become tomato ketchup?"

I was not quite prepared to meet this foil, and so was content to hold my tongue, and ponder on the wonderful capacities of a science that could so readily transform a rogue into an honest man.

Marblehead, Mass. JAMES J. H. GREGORY.

*For the New England Farmer.*

### INSECTS---ORCHARDS---BUTTER.

Borers—Sugar Orchards—Lawton Blackberry—Coloring Matter for Butter—Scalding Milk.

MR. EDITOR:—In the course of my agricultural reading, I occasionally find subjects for a reply or a few remarks, and I propose to bring up several of these for your columns at this time. First, I will speak of several communications in reply to your "Sandy River" correspondent, in reference to some apple trees which were diseased on the south side.

The general tendency of these articles is to show that exposure to the sun, or some such cause, induced disease first, and the borer attacked them afterward. The tenor of these articles is so much like an article in the *Horticulturist* for January, that I quote a few lines from that journal. "Insects do not possess the power of raising up the bark from the wood. The borers merely perforate it. When we discover different insects lurking between the bark and the wood, we must not accuse them of mischief, but we must attribute the separation of the two component parts of a tree either to some injury from without, or to disease from within." \* \* \* "I invite the attention of the anxious reader to any tree at which the *Scolytus* is pursuing his ordinary calling. Then let him examine the same tree during the following summer, and he will find the little round holes in the bark just as the insect had made them. After this let him take a gimlet and bore as many dozens of holes as he may think fit in the sound bark of some undeniably healthy trees. The next summer he will find every gimlet hole made up by new bark under the old." Now I am no entomologist, and know nothing of the *Scolytus*, and I will also admit that diseased trees are more likely to be attacked by borers, but with all due deference to these writers, who have, very likely, had many years more experience than I have, I must say that I know that one species of borer, at least, (a *Saperda*, I suppose), does attack healthy trees, and that although it may "not have power to raise the bark," it eats out the cambium, and thus separates the bark from the wood, and the castings of the insect seem to poison the wood, and thus retard the natural growing over.

SUGAR ORCHARDS.—In your weekly of January 7, Mr. "A. Pixley" recommends planting sugar maples on stony hill-sides. I have a sugar orchard

on the top, and just over the east side of a hill, and I think it yields more sap and of better quality than on level land, and the leaves not only keep the land on which the trees stand in the highest state of fertility, but a nearly equal area on the side of the hill below is kept in quite a productive state; and this land being sheltered by a belt of timber on the south, and by high hills on the opposite side of the valley east and north-east, I have planted a small orchard of apple trees upon it, and by throwing brush on the land to catch the leaves, I succeed in getting a better growth than on another orchard on good level land well cultivated. I have another suggestion for those who are planting sugar orchards, which, though it may be thought visionary, I offer for what it is worth. Probably no one who has been extensively engaged in the manufacture of maple sugar has failed to observe a great difference in the quantity and quality of the sap from different trees, while occasionally a tree combines an abundant flow of sap, with an extra proportion of saccharine matter. Now, if we are about to plant trees for sugar making, the profits would be doubled at once if by any means we could produce a whole plantation like the best single trees.

Does any one know what would be the effect on the sap, if the young trees were grafted close to the ground with scions from the best sugar trees? I think some of your Vermont correspondents would confer a favor upon your readers by a full description of the improved apparatus used in the making of sugar in that State, including the tubular heaters, drawing off sap with a syphon, &c., &c. The comparative value of maple sugar is an item I would like to have decided by Dr. Jackson, or some other chemist. On this subject, I take the following apparently editorial from the *American Agriculturist*, (July, 1859,) a paper, by the way, which I usually consider as reliable as any other: "Three pounds of maple sugar are worth as much for sweetening as two pounds of New Orleans or West India sugar—not more. Maple molasses also holds about the same proportion in value. Such facts, we presume, no advocate of maple sugar or molasses will deny." Now I had supposed there were two kinds of sugar, "cane sugar" and "glucose or grape sugar," and that sugar from the maple was identical with the former; if so, I cannot see why, when equally pure and dry, it should not sweeten as much as cane sugar.

**THE LAWTON BLACKBERRY.**—*January, 21st.*—My first impression on reading the reply of your New Bedford correspondent, was that he had "an axe to grind," but on examination of *Tucker's Rural Register*, I found no name corresponding to his initials, so I conclude that either he is not well acquainted with the best wild varieties, and consequently satisfied with a lower standard of quality, or that the Lawton does much better in warm localities. That mine are true to name, I feel sure, for they were obtained of a responsible dealer, and correspond exactly to the description and illustrations of that berry, and I certainly allowed some of them fair time to ripen, for I tried them at all stages, from the time they were well colored until they began to decay.

**COLORING MATTER FOR BUTTER.**—*January 28.*—I think I am safe in concluding that "South Danvers" is not himself a farmer, and I imagine

your farming friends will give him more credit for respect to his mother, than for skill in the dairy. Coloring butter in the summer months is not practiced by any one, so far as I know, but I never yet saw cows of ordinary richness fed so "generously" in winter as to make very yellow butter, and I have seen some that were well fed, too. I am well aware there is a prejudice against the practice of coloring butter, and I shared it myself, until experience convinced me it improved not only the color, but the quality of winter butter, to add a little orange carrot juice, and I believe this is the universal opinion of those who have given it a fair trial. I would not, however, use so large an amount as some of your correspondents advise; a little practice will soon decide the proper quantity. To prepare the carrots, I take a small milk-pan, a leaky one will do just as well, and punch holes through the bottom, and holding it inverted over a larger one, grate the carrots on it; then add a little milk and strain through a cloth and mix with the cream. I select the highest colored carrots for the purpose. I doubt not many of our Boston customers use a large quantity of butter prepared in this way, without once suspecting the source of its beautiful color, and they readily pay a higher price than for a similar article minus the carrot juice. One of our dairymen, who happened to own several cows yielding remarkably yellow butter, but who never added any coloring matter, was informed by an extensive commission dealer in your city, that he colored his butter too much.

**SCALDING MILK.**—In a conversation with one of our best dairymen, he remarked that by a moderate heating, the quantity of cream was increased, but if heated too hot, it was diminished. His rule was to place the pans over hot water until they felt quite warm to the hand. I allow them to remain until the surface of the milk begins to wrinkle.

WM. F. BASSETT.

*Ashfield, Jan. 30, 1860.*

#### NATURAL OYSTER BEDS.

Along the Jersey shore, where the rivers empty into salt water, there exist large natural oyster beds, whence are procured the seed oysters which supply the planted beds. In the spring, the oyster in the natural bed deposits its spawn—a white gelatinous substance, which adheres to whatever it touches—and in this way spreads a large growth of small oysters, some not larger than the head of a pin. From these seed-beds, the oysters are taken and laid in the shoal salt water, to be easily taken up when wanted, and where they remain for several years, till they get of sufficient size for market. Thousands of bushels of the small seed oysters are in this way distributed along the shore on the planting grounds, or sold to be carried away for planting to other States. The practice is to take these seed oysters away in the spring and fall. If allowed to remain in their beds over fall, they will separate and spread, but if removed at that period of the year the young oysters die by thousands. If they do not get bedded early in the mud, the tides being blown out by the winds, leave them exposed, or, else, by adhering to the ice in the winter, they are lifted out of their beds, and either carried away or

crushed. Unless something is done for the protection of these natural oyster beds, it is believed that they will all be destroyed, and even those engaged in the business, it is said, acknowledge the destructiveness of the present mode of operation, and desire that the period of taking the oysters for planting shall be confined to the spring of the year. Forty days from the first of April, it is believed, would be sufficient for all planting purposes, and an effort will be made at Trenton to get the Legislature to limit the planting to that period. Clams have been nearly destroyed by the continued raking of the bars, and the seed is now only kept up by those hid in the bottoms of the deep channels.—*Philadelphia Ledger*.

*For the New England Farmer.*

#### IS FARMING PROFITABLE?

MR. EDITOR:—Suppose a man who knows how to carry on a farm, and has a family to support, buys a farm of 100 acres of first quality land, which may be obtained here for \$50 per acre; he also buys 30 cows, at \$40 per head, and 1 pair horses for \$200. He is now in debt \$6400, farming tools included. 60 acres of the land will keep his cows well in pasture, with 4 acres more of green corn to feed them in July and August. 30 acres to grass, at 2 tons per acre, will keep them well in winter, with what roots he can raise from 3 acres of land. Then he has one acre more for corn to fat his hogs on, one for potatoes and one for buildings and garden.

FARM.	Dr.
To interest on \$6400, at 6 per cent.....	\$384.00
To hired man and woman 1 year.....	225.00
To support of family besides that raised on farm.....	250.00
To wear and tear of farming tools.....	11.00
To decrease in value of cows.....	30.00
	\$900.00
	Cr.
By 300 lbs. cheese for each cow, 9000 lbs., at 10c $\frac{1}{2}$ lb.....	\$900.00
By 100 lbs. butter for each cow, 3000 lbs., at 20c $\frac{1}{2}$ lb.....	600.00
By 30 calves, at 3 days old, at \$1 $\frac{1}{2}$ head.....	30.00
By 700 lbs. pork, at \$10 $\frac{1}{2}$ hundred.....	70.00
	\$1,600.00

Now if he will stay at home and attend strictly to his business, without which he cannot prosper, according to these figures he will pay for his farm and stock, with an immense pile of interest money, in less than ten years. JAKE.

*Essex, Vt., January 30, 1860.*

**CURIOUS BOUNDARY.**—In the registry of deeds, at Cambridge, book 88, page 121, Nov. 29, 1784, there is recorded a deed of a parcel of land in Lexington from Solomon Pierce to Joseph Underwood, dated Nov. 26, 1784, in which we find the following as part of the description: "then southerly on Wm. Smith to a pine in the swamp marked W, then southerly on said William Smith to stump and stones where Daniel Harrington licked William Smith." This seems to refer to an old tradition which we have often heard, that in the earlier days of the country it was the custom for farmers to "lick" their boys and their neighbors' boys on the bounds of their farms to make them remember where those bounds were.—*Lowell Citizen and News*.

*For the New England Farmer.*

#### TIME AND MANNER OF PLOWING—CUTTING AND CURING HAY.

MR. EDITOR:—I have already pointed out several questions of great importance to farmers, as yet undecided. I have chosen to consider them in this light, because, in some respects they really are so; and because I wish to do what has frequently been done before—to put my finger on the very spot "where the shoe pinches," which causes so many farmers to halt and limp in their awkward, ambling gait. There are several questions left of the same kind; among which are the following:

1. Is shallow or deep plowing the best? and should it be done in the Spring or Autumn?

After all that has been said and done upon these questions, both the time and the manner of plowing are still disputed questions. There is no settled theory, no common understanding—no well established principle of action, among farmers, for plowing different kinds of soil, in different situations, and at different seasons of the year.

A great many farmers, instead of plowing deep, and harrowing and manuring well, still continue to skim lightly over the ground, plowing only a few inches deep, and spreading their manure over a great extent of surface, which generally results in light crops, or, in case of drought, in no crop at all.

On the other hand, it is contended, that deep plowing is essential to an abundant growth of vegetables and grass, because it enables the roots to run down deeper into the soil and obtain therefrom more moisture and nutriment, so that the severest drought will not be able materially to affect the crops; whereas, in shallow plowing, as the roots can never go down deeper into the soil than the plow has been, the crops in all arid situations will be almost necessarily destroyed by the drought. Those who plow deep, pulverize and manure well, generally have good crops, let the season be what it may, either wet or dry, hot or cold. But those who, year after year, skim over the surface, plowing just deep enough to enable them to cover their seed, being afraid to bring up any of the subsoil to the light of the sun, spreading their manure over a great extent, to be dried up and wasted by the action of the elements, generally have poor crops, after all their labor and care.

With regard to Spring and Autumn plowing, there is perhaps an equal diversity of opinion and practice. Most farmers continue to do their plowing in the Spring. And as it will not do to plow till the land is in a suitable condition, they are obliged to wait till it is sufficiently dry and warm, before commencing the operation, otherwise it will bake down, and become hard and lumpy; so that, if the season happens to be a cold and wet one, they will not have time to do their work thoroughly and well, and will stand a very poor chance for a crop; whereas, had they done their plowing in the Autumn, they would have been ready for putting in their crops, as soon as the ground was sufficiently dry and warm to receive the seed.

On the other hand, it is contended, that the Autumn is the better time for plowing, because the farmer has more leisure, the land is in better con-

dition, and the team is stronger, than in the Spring. By plowing late in the Autumn, all the insects in the soil will be dislodged from their hiding places, and thrown up to the surface, and destroyed by the frosts of Winter. Besides, Fall plowing causes all the vegetable matter in the soil to decompose, and prepare food for future crop.

2. When is the best time for cutting and curing hay?

On this subject there is a great discrepancy of opinion and practice. Most farmers have been in the habit of letting their grass stand till it was fully ripe—till the heads were plump and full of seed, the stems dry, hard and wiry, the leaves changed to a brownish color, and the sap departed—before beginning the operation of haying. And as they had much grass to cut, and were a long time in cutting and curing it, a great deal of it became dead ripe, as wiry and tough as sole leather, and of little or no value. The loss which farmers have sustained by letting their grass get too ripe before cutting it is immense. And yet many still neglect to cut their grass till it has gone to seed, because it is more easily cured—not considering that, in perfecting the seed, the stems and leaves are exhausted of all their starchy and saccharine substance, it being consumed in forming the seed, so that there is little or no nutriment or fattening quality left.

The best time for cutting and curing all kinds of grass, is, perhaps, the period of inflorescence, when the grass is in full bloom, or just beginning to blossom. The grass has now attained its chief development; and there is the greatest flow of juice in the stems and leaves. If cut at this period and cured well, it will contain a quantity of rich and nourishing matter nearly double to what it does when allowed to get dead ripe. Horses and cattle like early cut hay better than late cut hay. They will fatten on it, too; while they will barely subsist on that which is cut late. The same is the effect upon cows in milk. They will make more and better butter and cheese, when fed on early cut hay, than on that which has stood till it has lost its rich and nourishing qualities. The best time to cut and cure hay, then, is that which will secure the most of the natural juices in the hay.

JOHN GOLDSBURY.

Warwick, Mass., 1860.

#### THE ABOTIO SHARK.

I much wish to capture one of these monsters (sharks,) as wonderful stories are told us of their doings in Greenland; whether they are the white shark or the basking shark of natural history, I cannot find out. It is only of late years that the shark fishery has been carried on to any extent in Greenland; they are captured for the sake of their livers, which yield a considerable quantity of oil. It has very recently been ascertained that a valuable substance resembling spermaceti may be expressed from the carcase, and for this purpose powerful screw presses are now employed. In early winter the sharks are caught with hook and lines through holes in the ice.

The Esquimaux assert that they are insensible to pain; and Petersen assures me he has plunged a long knife several times into the head of one whilst it continued to feed upon a white whale entangled in his net! It is not sufficient to drive

them away with sundry thrusts of spears or knives, but they must be towed away to some distance from the nets, otherwise they will return to feed. It must be remembered that the brain of a shark is extremely small in proportion to the size of its huge head. I have seen bullets fired through them with very little apparent effect; but if these creatures can feel, the devices practiced upon them by the Esquimaux must be cruel indeed.

It is only in certain localities that sharks are found, and in these places they are often attracted to the nets by the animals entangled in them. The dogs are not suffered to eat either the skin or the head, the former in consequence of its extreme roughness, and the latter because it causes giddiness and makes them sick.—*McClintock's Narrative.*

*For the New England Farmer.*

#### FARMING AS A BUSINESS.

MESSES. EDITORS:—"Is farming profitable?" must, ere this, have become quite familiar to your eyes. Mr. Pinkham's article has provoked so much discussion upon the above topic, that one would reasonably suppose the matter ought already to be settled beyond the possibility of a doubt; but it seems people do not all think alike yet, for your paper of Jan. 14th shows us that "Newbury, Vt.," has its Pinkham—perhaps, however, only in the comparative degree—who claims to have shown that stock-raising as a part of farming is not profitable. I think it is evident that "T. A. Bailey" shows stock-raising to be profitable; not in the abstract, but as an inseparable part of wholesome farming. Allowing his figures to be strictly correct, we have the following result, viz.: A four-years old colt, a veal of one month, a sheep, with her four years' progeny, and a calf raised to two and one-half years, have extracted \$3.71 from his pocket, and so he thinks he is so much poorer; but has his farm not gained, much more than his "port-monnaie" has lost? If I wished to arrive at the true results of farming, I should as soon think of figuring up the profits of pulling chickweed as of raising calves, or corn, or grass, alone. These, with many other matters, go to make up the aggregate of farming, and must all be taken into account; not on one farm, not for one year, but the whole farming interest, for a series of years. Mr. Pinkham can calculate and Mr. Bailey figure, and yet people will not be convinced that farming is a losing business, when facts show to the contrary. How does it happen that an intelligent and industrious young man buys a farm, and only half pays for it, but eventually leaves it unencumbered and much improved, to a family of children, whom he has well-fed, clothed and educated from the proceeds of said farm, if farming is not profitable?

Such instances are by no means rare. I will ask, are not farmers, as a whole, much more wealthy and independent now than they were a few years ago? And how is this, if farming is not profitable? for they have "lived well," and their sons and daughters have not been "brought up" for a trifling amount. All comes from the farm, and yet farming is a losing business! 'Tis well that farmers do not all think alike, for then we might be flooded with "short horns," to the exclu-

sion of everything else for market; but so long as farmers do as now, I shall make it a point to sell no vegetables from the farm that will "bring" as much money when converted into some kinds of meat. Not because I can only get what my stock has cost shall I conclude stock-raising is not profitable, and abandon it.

I know that an intelligent man, who is willing to work with his hands and head, may make farming profitable in pocket, and healthy both for body and mind. That degree of industry and shrewdness requisite to keep the commercial man's head all the time above water, will float the farmer's bark smoothly and securely upon the bosom of the sea of life.

G. W. H.

New Bedford, Jan., 1860.

### EXTRACTS AND REPLIES.

#### HUNGARIAN GRASS.

I wish to inquire if you, or any of the correspondents of the *Farmer*, made trial of the Hungarian grass the last season, and if so, what was the result? Is it a good article for soiling cows? Is it not similar to millet? I have raised millet, but think it is not as good to make milk as green corn. I cured some and weighed it. It produced at the rate of two and a half tons to the acre, the quality about equal to herdsgrass. If the Hungarian grass is as valuable as was represented by some, (who perhaps had seed to sell,) let us have the fact before seed time.

ABEL F. ADAMS.

Fitchburg, Feb., 1860.

REMARKS.—The Hungarian grass, so called, is a species of millet, and would probably be a good crop for feeding to cattle in a green state. We have raised it for dry fodder. It is an annual plant, and may not be so profitable as other grasses on that account.

#### PIPE FOR CONDUCTING WATER.

We notice the inquiry of one of your readers of Billerica in the *Farmer*, for the best pipe to use for conducting water on his premises, and should be pleased to have you inform him, that the Boston Belting Company manufacture an article which possesses the very properties he requires, and is every way adapted to his purpose.

#### PRICES.

1	INCH, (INSIDE DIAMETER),.....	11	CENTS PER FOOT.
1	" " " " " " " " " " " "	15	" " " "
1	" " " " " " " " " " " "	24	" " " "
1	" " " " " " " " " " " "	35	" " " "
1	" " " " " " " " " " " "	45	" " " "

These are all warranted to stand 200 lbs. pressure to the inch. TAPPAN, MCBURNEY & CO.  
Boston, Feb., 1860.

#### SPLENTS ON A COLT.

I have a very valuable year-old colt that has splents on both of his hind feet. Can you, or any of your correspondents, tell me if there is any cure for it, and if so, what, and oblige

A. C. QUIMBY.

North Sandwich, N. H., Jan. 22, 1860.

REMARKS.—We wish we could—but there is no remedy within our knowledge. Perhaps others may advise you.

#### THE HORSE PITCHFORK.

I wish to inquire through the columns of the *Farmer* about the horse pitchfork; some of your correspondents have spoken of it as a labor-saving implement. If it is, I should like to know how it operates, its cost, and if it can be used in any common barn.

W. N. C.

Hartford, Vt., Feb., 1860.

REMARKS.—Those who understand the cost and operations of the horse pitchfork will confer a favor by replying to the above.

#### THE CASH AND THE ONION MAGGOT.

MR. EDITOR:—A few months since, it was announced in your paper by a citizen of Vermont, that he had discovered a certain cure or remedy for the onion maggot, and was ready to communicate this remedy to any one interested who would adequately reward him for his enterprise in making the discovery. Many an eye glistened at the hope of such a development of intelligence. One of our largest cultivators of this vegetable, who has some seasons raised more than 4000 bushels of onions, entered into correspondence with this discoverer, to learn on what terms he might avail himself of the benefits of this discovery.

This gentleman now informs us, that he has received the terms of the son of the Green Mountains, which are, \$100,000 to be paid or adequately secured, so that he may be secure from want for the remainder of his life. Or, if he wants the remedy for his own personal use only, that he will let him have it for \$60,000. Thus, you see, sir, here is a new idea to be taken into view, in your discussion of the "profits of farming."

P.

February 6, 1860.

#### MUCK AS A TOP-DRESSING.

How will it do to apply as a top-dressing to grass land of a rather dryish soil, muck that is well pulverized by having been exposed to the action of frost for several years after having been taken from the swamp?

A SUBSCRIBER.

REMARKS.—It will undoubtedly have a good effect. Will you make an experiment, by applying the muck to quarter of an acre, leaving quarter of an acre directly by its side without any, and at some future day give us the result?

#### BUTTER AND MILK.

If "S. C. C." Brattleboro', Vt., will examine the statement of Gov. Boutwell, in the *Farmer* of Feb. 4th, a little more thoroughly, he will see that, allowing 20 lbs. of milk to a can, the statement is correct throughout. A radical error occurs in "S. C. C.'s" reduction of the pounds of milk to cans, which occasions the wide difference in his results.

#### KEROSENE FOR LICE AND TICKS.

Please tell correspondents who wish for light on the subject, that kerosene oil will kill lice and ticks, without injury to the animals; so say those that have tried it.

W. I.

**RECIPT FOR WASHING FLUID.**

A very excellent article for this purpose may be made by dissolving 4 oz. saltpetre in 2 qts. water, and add this to a solution of 1 oz. borax in 1 pt. water. Mix about five tablespoonfuls with a pint of common soft soap, and add to the water in which you soak your clothes. It is more effective, if they are allowed to soak over night.

**WASHER.****TO CURE WARTS.**

I will say on the authority of one of the first physicians in Hampden county, and one well acquainted with horses, that the application of equal parts of lamp oil and molasses, will cure the worst of warts on man or beast. T.

*Chicopee, Jan., 1860.*

**WINTER BUTTER.**

L. R. HAVINS, Foxboro', scalds the milk, sets it where it will not freeze; sprinkles on a little salt each time cream is added. Gets good sweet butter.

**FOUNDERED HORSES.**

I wish to inquire the best method of treatment for a horse that is foundered in the chest? Also, for the thrush in the foot? H. C.

**CARROTS OR POTATOES FOR HOGS.**

Which is the best food for hogs in the winter season, carrots or potatoes? E. QUIMBY.

*For the New England Farmer.*

**DISTURBANCE OF TILE DRAINS.**

The statement made by a correspondent in the *N. E. Farmer* that tiles in drains are liable to be displaced by loaded teams passing over them, is contradicted by my experience, and I cannot believe that it is borne out by fact in any case where tiles are well laid. W. D. may lay tile even on his meadow land without fear that they will be injured if ordinary care is used. Stone drains are much more liable to disturbance from every cause than tile drains, and any assertion to the contrary must be based upon extraordinary experience, if upon any.

A tiledrain about two hundred feet long was laid by my direction in a swamp where the trench was three feet deep, and the tile laid on hard-pan bottom. A drive-way was immediately constructed over it, and all the stone for a house cellar, and loads of other heavy material carried over without any disturbance. A constant use has been made of the drive-way since that time, and for two years, without ceasing, the drain has discharged an average of two thousand and four hundred gallons of water, daily. In another case, drains were laid four feet deep in a meadow where the mud was soft and of undetermined depth; after the drains had been discharging for two or three months, and the meadow had dried enough to allow teams to cross, sand and other earth was carted on to the depth of six or eight inches; no care was used in driving over the drains, and yet they have continued to discharge to their full capacity for nearly a year since the earth was hauled on.

I have directed about twelve thousand dollars' worth of draining, and never used any care about the crossing of loaded teams, yet no drain of the whole number has, to my knowledge, failed, or been at all injured from that cause.

J. HERBERT SHEDD.

*Boston, January 30, 1860.*

**A MONKEY'S AFFECTION FOR RATS.**

One of the principal objects of attraction at the Aquarium in Bromfield Street, is a female monkey that exhibits an extraordinary affection for rats. She is one of the "Happy Family" belonging to the establishment, and soon after being placed there, conceived a fondness for a rat, that was also a member of the "family." Upon every occasion when she could catch the rat, she would hold it in her arms, fondling it as a mother does her child, and caressing it with every mark of affection. The rat soon began to like this kindness, and would remain for hours in the arms of its friend. Finally the monkey would not allow the rat from its arms a moment, even to feed, and at last the pet was actually starved to death. The monkey met this bereavement much in the same manner as human parents do the loss of offspring who have died in consequence of over-fondness, with sobs and moans, and she would not be comforted.

For twelve hours she held the dead rat to her breast, refusing all the time to eat, or to take notice of any of the other animals of the "family." At last Mr. Cutting took the rat from her by force, and fearing that she would voluntarily starve herself to death, he placed three other rats in the cage. This addition to her "family" brought the bereaved animal to her senses, and the care requisite to the government of these pets takes up all her time, and she is twice as cheerful as ever before. She is never for a moment without some one of them in her arms, and frequently fondles two of them at a time. But the new comers are not altogether grateful for her attentions, and most frequently, while she is holding one of them, the others are eyeing her askance from some distant part of the cage.—*Traveller.*

*For the New England Farmer.*

**MR. PORTER'S SQUASH.**

The magnificent vegetable, a description of which I gave you last autumn, has now reached the last stages of its being. It shrunk 24 pounds, weighing only 140 pounds on the day it was cut. The halves appear as large as a common wash tub, the meat measures four inches in thickness; and is as yellow as a bright carrot. It has probably lost some of its vitality, by being kept in a warm room so long. The seeds are numerous, plump, fair and handsome; many of them had sprouted one inch or more. I am thus particular, in describing its present condition, because much inquiry has been made about it, by letter or otherwise; and much solicitude to obtain some of the seeds. Mr. Stevens, of the Legislature, is an experienced cultivator of fruit, who lives near Mr. Porter, and will tell you all about this truly extraordinary squash. J. W. PROCTOR.

*South Danvers, Jan. 28, 1860.*

## LADIES' DEPARTMENT.

### CUTTING ROBBIE'S HAIR.

BY MARY E. BRYAN.

And so this little household flower of ours must be shorn of some of its superfluous beauties. Even roses and geraniums must be pruned sometimes, and these uncut, silken rings, with the golden sunshine of three summers entangled in their meshes, must make the acquaintance of scissors at last. Grandpapa says so, and adds that if it is not done shortly, the low plum boughs will make another Absalom of Robbie, sometime, when the blue-eyed gander is in hot pursuit.

There is no denying that the curls need trimming; they are too many and too thick, and they make the little head droop uneasily to one side, like a half-blown moss rose-bud under the weight of its own moss, and straggle sometimes into the mouth and eyes. Yes; they must be cut; but it seems such a pity! Little curls that we have twined around our fingers when all wet from the morning bath; little curls that we have played with while singing the evening lullaby; little curls that our tears have fallen upon when the baby eyes were shut in sleep!—ah! only mothers know how dear such curls are to mothers' hearts.

Here are the scissors. Robbie must sit very still, now, while his hair is being cut. Why, sir, why do you smile and look at me so beamingly with your blue eyes? How do you know that I am not going to cut off that saucy head of yours with these great, sharp, cruel scissors? O, holy faith of childhood! If we could only trust our God, as implicitly as babes do in their mothers! "Except ye become as little children, ye shall not enter the kingdom of Heaven."

Be very still, now, while I comb out these threads of shining floss. The mother is the first barber to her boy; no other fingers can perform the sweet office so gently; but when fifteen or twenty years have flown, rougher hands will comb and cut these locks, all bronzed by suns and winds, and clustering above the brow of manhood. The white-aproned, clean-handed barber will then arrange them in the latest style of trimming; pomading, perfu—no; my boy will not be a dandy! by these strong limbs and the sturdy look in those eyes—no.

But to think the down of manhood will gather on this cherry upper lip and on chin and cheek, dimpled as though by the touch of an angel's finger. To think that this round neck of alabaster will be choked up with a man's necktie, and these lily-bud feet will wear high-heeled boots, and—Faugh! I will not think of it. I cannot realize that this fair baby of mine—but three summers out of Paradise, and still smiling in his sleep, remembering what the angels said there—shall ever be so metamorphosed.

And yet the boy's babyhood is rapidly fleeting, and the severing of these ringlets seems like cutting the golden thread that links his infancy to his childhood. O, Robbie, I can call you "baby" but little longer. You blue-eyed elf, you are already rebelling at being treated as one. You had rather run, now, after your painted wagon, than lie in your rose-curtained crib, and hear me sing of the baby whose cradle was the tree-top, and whose nurse was the wind. You will not wear your co-

als, because grandpa says they are for babies, not for men; you had rather hunt hens' nests than play bo-peep; and when I hold out my arms to you, as you stand in the door-way twirling your hat, you turn your head on one side, like a half-tamed bird a-perch on one's finger, while your dancing eyes seem to say, "You'll see, you'll see! I'll soon take flight!" Pretty soon you will not believe in the wolf that talked to Red-Riding-Hood, and will lose faith in Santa Claus.

I cannot keep the bud in its sheath; I cannot stay the little bark that slips so rapidly down the hurrying stream of life. Soon, the rill will broaden into a river, and the realm of roses and sunny skies be passed. And the gold of these ringlets shall be dimmed by time, and the roses perchance drop from these pretty cheeks, and sorrow and sin, it may be, cloud the clear, blue heaven of these innocent eyes.

There! I am crying. How grandpapa would laugh if he caught me, and say it was because I wanted the curls to stay and make a girl of his boy. See! there are tears glistening in these sunny clusters of hair, like dew among the golden-blossomed jessamine vines, and your eyes are looking at me with wide-opened wonder, and your red lip beginning to quiver with ready sympathy. O, Robbie! even if the worst should come, and I should have to lay this bright head with its locks of undimmed lustre under a coffin-lid, and see the grass grow between my darling and the bosom he once slept upon, I should still thank God for having given him, for having crowned my life with the holy blessing of motherhood; for it is such little arms as these around our necks, Robbie, that make us feel strong to do, and to suffer; it is drawing such little heads as these close, close to our breasts, that keeps the hearts of some of us mothers from breaking.

There! that is grandpapa's step upon the stair—and the task is just completed—the little lamb is shorn. Look at this bright heap of glistening silk, such as Persian looms never wove into richest fabric. Here is "golden fleece" for you, such as never the lover of Medea sought. You did not know that such a glittering wealth grew on your little head—did you, blue-eyed baby?

No, you must not clutch it with those destructive fingers. Go—grandpa is calling you—let him see his little man; but leave me these—the first curls cut from my baby's head. I will put them away to remind me, in other days, of his sweet, lost infancy.—*Southern Field and Fireside.*

**BLOWING OUT A CANDLE.**—There is one small fact in domestic economy which is not generally known, but which is useful as saving time, trouble and temper. If the candle be blown out holding it above you, the wick will not smoulder down, and may therefore be easily lighted again, but if blown upon downward, the contrary is the case. *Scientific Artisan.*

**SNOW CORN CAKES.**—Take any desired quantity of Indian meal and sugar, and salt to the taste, stir in with a spoon, twice or three times its bulk of snow. Fry a little on a hot griddle, if it cooks too dry to turn well, add more snow: if too wet to be light, add more meal. Cook the same as buckwheat cakes.





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### A TALK ABOUT APRIL.

"Again rejoicing nature sees  
Her robe assume its vernal hues,  
Her leafy locks wave in the breeze,  
All freshly steeped in morning dews."



APRIL, the fickle month, has been the source of a great many poetical images, and a great deal of moralizing. Life itself is said to be an "April day," but to our mind April seems like nothing so much as a sweet, capricious young damsel. You see, both begin their empire by making fools of us, and carry it on by alternate smiles and tears. At first, those tears bring a cloud to our own brows, but soon finding how shallow their source is, we harden our hearts, and laugh alike at smiles and tears,

well knowing that the young thing will settle down into a sober matron at last.

How the first day of April came to be called "All Fools Day," is not definitely known, although two or three solutions are offered, but sufficient for us is it, that from time immemorial it has been as religiously observed as any other great day in the Calendar. On April Fool day, a man never knows when he is safe. Did you ever attempt to light a candle, and after ten or fifteen minutes unwearied exertions, find you had been blowing a parsnip? Is there a plate of particularly nice looking pancakes on the breakfast table? Don't be deluded into taking one, for like many other attractive shams, they are only stuffed with cotton. Does some fair lady, with a winning smile and

courtesy, present you with a tempting slice of plum cake? "Stay thy rash hand," for you will find it seasoned with pepper, and sweetened with mustard. Shade of *Pandora*, what a conglomeration! You fare so poorly at home, that you think you will take a walk to the Post-Office by way of variety. You have been expecting an important business letter these three weeks—a letter which is to settle all your anxiety about a certain perplexing affair. Sure enough, there it is, an official looking document, precisely such as "fancy painted" it. You do not care, however, to have the bystanders see any unusual agitation on your countenance, so you step a little one side, and open your letter. It reads thus:—"Eh! you April Fool!" Amid a general laugh, in which you join, because it is the most dignified course left for you, you leave the office considerably crest-fallen. Having become a "sadder and a wiser man," you do not stoop to pick up the letter lying on the door-step, directed to yourself in a large, bold hand, but walk on, congratulating yourself that you are not caught this time. A little boy runs after you, calling out, "Mr., here's your letter." "Well, keep it," you ejaculate gruffly—another laugh from the office, and you discover that this was the "true bug," and the other the humbug." In short, that the whole thing was that hoax which is commonly called an "April Fool." Who has not been through just such a series of disasters, every year since he can remember, and alas! our children promise to be no wiser than ourselves. Man was made upright, but he has sought out many inventions.

Spring having fairly arrived now, the farming world begins its work in earnest. What a relief to both man and beast, to get out into the fresh air again. Everybody enjoys returning spring, notwithstanding its east winds, and mud, and storms, yet no one can look at it just as the farmer does. Now he returns to the pursuits which interest him most. With what exquisite pleasure

he turns up the fresh earth, plants his seed, and watches the little germ which is to appear on his table in the shape of corn, beans and potatoes, by-and-by. Others may enjoy the opening life of vegetation, but none can regard it with the same interest as he who claims ownership, and has the whole training in his own hands. It is all the difference between the parent of a fine family of boys, and the good neighbor who looks indulgently on, and thinks they are as well as could be expected of boys, but must be a deal of trouble.

Exclaimed one of the farming gentry from the limb of a tree which he was pruning—"Would I be President of the United States, when I can stay up on this tree!"

Such is the depravity of the human heart, that perhaps, if a deputation of his fellow-citizens had at that moment appeared, and invited him to come down from that tree, and go to Washington, he would have obeyed at the first summons, without waiting for grass or stones to "fetch him down," like the boy in the spelling-book; but this we will guarantee, that from his presidential chair, he would often look back with longing, to his former more humble elevation. It should require a strong sense of duty to his country, to call a Cincinnatus from his plow, or a Harrison from his log cabin. "Uneasy lies the head that wears a crown."

There is something in the "sweet influences" of Nature, and in the society of domestic animals, which love us without envy or malice, that is very soothing to one tired of the world's unceasing strife. To be sure, there is much that is hard, and some things not of a very elevating tendency in farm work; but hear what our good neighbor says: "I don't know but it is as dignified an employment to rub my pig's back for him, as to smooth the asperities of a restless politician; to teach my young steers to pull together, as to teach refractory 'Young America' to navigate the ship of State, without running her on to rocks. There are my bees," he says, "they will sting sometimes, but not so cruelly as man's ingratitude."

There is certainly some truth in these remarks. Many young men are kept from becoming farmers, because it is not the way to become suddenly rich, or generally speaking, famous, but it is a sure way to secure peace of mind, which is, at least, worth considering.

As to the nobility of the calling, Adam was its founder, and we can't go much farther back than that. To be sure, at that early period of the world's history, the choice of profession was somewhat limited, so that some people may say, Adam hardly had a chance to indicate his own feelings on the subject, but if this was the only calling offered him, it would seem to be the *design* that he should pursue it. The first lawyer was undoubtedly in the garden. This we shall have to admit, for

with what skill at "special pleading," he presented the "case" to Eve, and won it too, sad to relate. We all know what an extensive practice he has had ever since.

Although many turn from the business of farming as not affording sufficient scope for ambition, or because they think it does not *pay* well, yet most men look to its pleasant retirement, as the hope and dream of old age.

"Give fools their gold, and knaves their power,  
Let fortune's bubbles rise and fall;  
Who sows a field, or trains a flower,  
Or plants a tree, is more than all."

#### AGRICULTURAL EDUCATION.

The Massachusetts Society for the Promotion of Agriculture has in press, under the direction of its accomplished Secretary, RICHARD S. FAY, Esq., a new volume of its Transactions. It will contain, among other useful matter, an essay upon Agricultural Education, by Judge FRENCH, from advance sheets of which we give below some extracts. The writer advocates the establishment of a *School of Agriculture*, in each of our counties. Coming at a time when this subject is attracting much attention, we are sure our readers will be interested in the proposed plan, whether they concur in all its details or not.

#### "Secondly,—WHAT IS TO BE TAUGHT?"

To this question we may reply, in general terms, that we desire to teach the future farmers of the State how to increase their crops, without impairing the fertility of their soil, and how, at the same time, to cultivate to their fullest capacity their farms, their intellects, and their hearts, not neglecting their physical powers. There are higher aims in life than to raise corn, or to spin cotton, or to make money. A perfect system of education should have regard to the full development of all our powers. The education of the farmer should give him strength of body, vigor and manliness of soul, with refinement and taste to appreciate what is noble, and love what is lovely, as well as skill in the cultivation of his fields, and knowledge of the points of his cattle. To understand clearly what we want, we must first know what we possess, and then, looking abroad for standards of comparison, we may form some estimate of our possible attainments.

#### STATISTICS.

A glance at a few statistics will show us what, practically, we are doing in the production of the principal crops, and at the same time indicate whether improvement is demanded and is possible.

We give below, the average product per acre of the leading crops in Massachusetts, and in the whole United States, for the year 1849, as given in the Compendium of the United States Census of 1850, at page 178; also the average product of Massachusetts, for 1855, as given by the Board of Agriculture, in the report of their Secretary.

The correspondence of the two returns for Massachusetts, the one being made under the author-

ity of the United States, and the other under that of the State, for different years, is such as to confirm the accuracy of both. The difference in the average product of corn in the two returns is but 3-13 of a bushel, in the product of rye 8-14 of a bushel, in that of barley but one bushel. The disease of the potato accounts for the discrepancy in the returns of that crop.

We give, also, the average product per acre of the same crops in Scotland, for the year 1856, from returns deemed perfectly reliable, and the average product of three years, at the Albert Model Farm, in Ireland.

Table of Average Products per acre, in Massachusetts, in Scotland, and at the Albert Institution, in Ireland.

	Corn.	Wheat.	Rye.	Barley.	Oats.	Potatoes.	Turnips.
By Census of 1850, average product in Mass., per acre—bushels, . .	31	16	13	21	26	170	231
By Report of Board of Agriculture, 1856, average product in Mass., .	28½	10½	12½	20	21½	83½	231
By Census of 1850, average product in all the United States, as stated in Report of Secretary of State, for 1856, . . . . .	19½	9½	11½	17½	19½	65½	
Average product in all Scotland, 1856, . . . . .	None.	29½	24½	34½	36½	102	694
Average product, Albert Institution, Ireland, 1853 to 1856, . . . .	—	32½	—	39½	70	373	747

We have here the astonishing facts, that the average product of all the land in Scotland, for the years given, is in wheat, more than *three times* the average of the United States; nearly double that of Massachusetts; and more than double that of some of the great wheat-growing States,—the averages in New York, Ohio, and Indiana, being 12 bushels; in Illinois and Missouri, 11; in Iowa, 14; in Pennsylvania and Texas, 15; in Virginia but 5 bushels."

"It is felt and acknowledged everywhere in this country, that the College fits no one for the actual duties of any profession, art, or business of life. It does not profess to do so, but merely to give a training preparatory to the special education for some peculiar business.

For those who have wealth and leisure for the fullest education in literature, in art, and in science, whether they design to devote their lives to some regular profession or business, or to lead lives of elegant leisure, or to take their chances in the mazes of political life, a college course at Cambridge, doubtless offers unsurpassed advantages. But at the best, the number who can avail themselves of the benefits of college life, is but a very small fraction of the young men of the State. The vast majority are compelled to be content with

a course of study less expensive of time and of money. This must, from the nature of our republican institutions, continue always to be the case. The three or four collegiate institutions of the State are all that are demanded for the training of such as are in a position to ask for this peculiar course of instruction. Indeed, the number included in our college classes more than represents the fraction of our own youth who avail themselves of a collegiate course, for other States contribute largely to swell this number. How idle is it, then, to point to our Colleges as the means of the general education of our youth. They do not profess to train their pupils for the actual business of life; and their classes do not, in fact, and as at present arranged, never can, include more than a small fraction of our young men.

If, again, we look at our Academies, we shall find in their classes, it is true, a greater number of our youth; for many are able to devote a year or two to an academical course, who have not the means, if they have the inclination, to enter upon a college life. But here, again, we meet the same objection, that the academical course of study is not in the line of training for the actual business of life, but rather a system of preparatory training for the colleges. It is understood that the course of studies at our best academies is especially adapted to prepare young men to enter college, and is not designed as a course complete in itself. The three or four years at the academy are therefore devoted almost exclusively to the study of the dead languages and mathematics."

#### SMOKING IN JAPAN.

There is probably no people who indulge so unremittingly in the practice of smoking as the Japanese, not even the people of Holland and Germany. The Japanese indulge the habit even in their sleeping hours. The fibre of the Japanese tobacco is extremely fine, somewhat resembling hemp, and its aroma is mild. It is smoked altogether in metallic pipes, clay never entering into the composition of a Japanese "dudeen." The wealthy use pipes of gold and silver, elaborately engraved, while the poorer classes content themselves with brass and iron pipes. The bowl of a Japanese pipe is smaller than a lady's thimble, and the quantity of the weed consumed diminutive in comparison with the contents of the huge meerschaums, chibouks and narghilehs of the Orientals. The tobacco is rolled into pellets, about the size of peas, and one of these gratifies, for the time being, the desire of the smoker, who inhales the smoke into his lungs, then puffs it off through his nose, literally converting the nasal appendage into a funnel. Attached to the pipe is a pouch made of paper, in which the Japanese carries his tobacco. His pipe is his constant companion, assuaging his pains, dispelling his gloom, soothing him in his irritability, and lulling him to repose when weary. He smokes day and night, before and after meals, always within doors, awaking at intervals during the night, lighting his pipe with coals from a brazier kept always full and burning, puffing a few whiffs, then dozing again. He never lights the same tobacco twice, but empties his pipe and fills it at every indulgence.

# LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The fifth meeting of the present series of the Legislative Agricultural Society was held on Monday evening in the Representatives' Hall at the State House, and a good audience, among which were many ladies, was in attendance.

The meeting was called to order by Hon. H. NASH, of Williamsburg, who introduced RICHARD S. FAY, Esq., of Lynn, as Chairman of the evening.

Mr. FAY on taking the chair announced the subject for discussion, "*Agricultural Education*." He said that at a previous meeting when the question "how to make farming pleasant and profitable," had been discussed, he had stated many of his views on the present subject, and his remarks would necessarily be somewhat of a statistical character now. He stated that education must be considered not incidentally, but in its capacity in improving agriculture—not in the common idea, but the best method in which it should be furnished.

Before we get the true estimate of its importance we must consider agriculture itself; it must be socially and politically considered, although, said the speaker, it is almost ridiculous to speak of it in this light, as it is so patent to all. We read of its importance every day, and yet there is no act—no action. It is the most important matter, not alone in this State and country, but in the whole world.

Agriculture, said he, is the instrument that sustains mankind; it feeds them—it clothes them; and it is that upon which the civil and political existence of the world depends.

Mr. Fay said it was his confirmed opinion that agriculture was underrated by those who were employed in it; and he alluded to what Mr. Webster said in relation to it, on his return from England, when addressing an agricultural meeting in that hall: "That there was no man in England so high as to be independent of that great interest; and no man so low as not to be affected by its decline," &c. If, said Mr. Fay, agriculture is so important, the means by which it can be made more so are certainly well worthy of consideration, and in doing this it might be necessary to inquire what is done abroad and see if we are not behind in our system.

The speaker then said that by the State census of 1855, or the United States census of 1850, the average production of corn in Massachusetts was less than 30 bushels to the acre; but if the returns of corn exhibited at the fairs of the agricultural societies was averaged, it showed 80 bushels to the acre. He then spoke of the production of wheat here and in Scotland, saying that, by these

returns, the average production of wheat in this State is 16 bushels to the acre, and that of the whole United States more than six bushels less, while in Scotland, with a climate and soil much less favorable to a large yield, and many other disadvantages, the average product per acre was 29½ bushels. While the average product of the United States was only 9½ bushels per acre, that exhibited at the agricultural exhibitions in Massachusetts showed a yield of 33 bushels. The latter showing what can be done, and the former showing what is done. The speaker contended that the reason, and the only reason, why we do not equal the product of Scotland is that we do not understand our business—we need education and enthusiasm, and he contended that the same want of education in any other pursuit would be comparatively ruinous.

He then spoke of the Albert Model Farm School in Ireland, as an institution where science and education were brought to bear, and as a partial refutation of the ridicule with which some men speak of book-farming. He said this school had been commenced as a means of developing the agricultural advantages of the country, and to show the success of it, he gave statistics of the returns, both of this Institution, Massachusetts, the United States and Scotland, from a work now in press, the author of which is Mr. Henry F. French.

Of rye, in 1850, the average yield in Massachusetts, was 13 bushels, in Scotland, 24½, at the Albert School, 35.

Of barley, the average yield in Massachusetts, was 21 bushels, in the United States, 17, in Scotland, 34½, and at the Albert School, 39½.

Of oats, a crop, said he, on which we pride ourselves in Massachusetts, 26 bushels, (and in 1855 only 21½,) in the United States 19½, in Scotland, 36½, and at the Albert School, seventy bushels.

This, he thought, showed that our trouble lay in the want of education.

Mr. Fay then spoke of root crops, and said there was no country in the world where more attention was given to these than in Great Britain; as there farmers understand that the root crop makes the grain crop, and from his turnip crop a man estimates his income from his grain. As another instance of our want of knowledge of root crops, Mr. Fay said that while the turnip crop of Massachusetts only averaged 231 bushels to the acre, that of Scotland was 694, and that of the Albert School, 747. The speaker then alluded to the hay crop of Massachusetts, which he estimated to be worth \$20,000,000 per annum, saying that we could produce five times as much without decreasing the value of the article, and that in five years the product of the land, by education of the farmer, might be doubled, and then asked whether this was not a matter worth con-

sidering. If, said he, we can introduce agricultural education into our common schools, and so add \$20,000,000 worth of taxable property to our State, this would be a capital investment, and at the same time would make our country look glad instead of sorry—our fields smile instead of weep.

How shall this be done? he asked. Many advocate the establishment of an Agricultural College, farmers' clubs, agricultural exhibitions, the distribution of tracts, &c. These, said he, may have their objects, but they are ephemeral, they do not meet the wants. We have to begin at the foundation to build up an enduring system as they have in Scotland; and Mr. Fay said he thought this could only be done by our common school system. We have educated heretofore in the wrong way, forgetting that seven-eighths of our people live by agriculture; we have been educating away from agriculture, and it is to our children's minds a drudge.

The Massachusetts Society tried the right method forty years ago, but we were a new country then, and if a farmer found one lot did not yield the crop he expected, he went to another lot, there being abundance of land; but now our land is impoverished and we have to take the stand that Scotland did twenty years ago, and by education in this direction bring agriculture to be considered a pleasure to our children. This must be done by changing the whole system of instruction, and teaching them agricultural chemistry, botany, and the kindred sciences.

The speaker urged the importance of this on the meeting, saying that he was so much the stronger an advocate in favor of it from the fact that he felt the loss of this education himself, and he alluded to the ease and thoroughness with which the young would learn when the tuition was early commenced.

He then introduced Mr. GEORGE B. EMERSON, as one who had for many years been engaged in the instruction of youth, and yet who had the interests of agriculture deeply at heart.

Mr. Emerson commenced by saying he thought there had been enormous mistakes made in the education of the agricultural part of the community; it was a fact that was ringing in every man's ears. He inquired what education was now given to benefit the farmer, as such, in our public schools, and contended that the education best adapted for the wants of the farmer would benefit every class of men. The speaker asked why our children should not be taught of what the air we breathe is made, and what it is made for, of what the water we drink is made, of what the earth we tread, and what the sunshine is, and what its uses.

The basis of all education, he contended, should be a knowledge of things, and if it were possible, he would place every child in the same position

God placed our first parents, and let it know all about the surrounding objects. There is not a fact about science, said he, that is not easy to learn, and these should be taught by simple experiments, which impress themselves forcibly and indelibly on the minds of children, and it is only necessary to get teachers qualified to teach chemistry, botany, and the like, to have the pupils learn well. It requires less study to teach these than the branches which are now taught.

Every fact connected with the education necessary for a farmer, said the speaker, is more easy for a child to learn than anything else, and if this were not so, I should think God had made a mistake. A child longs for this learning, and to show this, he alluded to the inquiries they invariably made.

Mr. Emerson alluded, humorously, to a statement in the recent work of Darwin, that cats were necessary to the growth of clover, and followed the argument through, showing this curious instance of the dependence of one creature upon another. This, said he, is more difficult to understand than almost anything else. Every single fact that lies at the base of what a farmer should know, is easier to learn to the child than what he now has to learn, and these would be the best foundation for the very highest education, and he argued that all our ablest men have come from farms, where they have gained the strength to fill places in our government.

Senator EDDY, of Oxford, said he thought it would be a good thing to educate our children in the branches advocated by the last speaker, but the difficulty in getting teachers appeared to him insurmountable. He would rather put a child of his out in the family of a good farmer, whose mind was alive to the improvement of the age, than have him taught by any teacher in our schools, as by this means he would acquire a thorough and practical education, while his studies in school would only give him a superficial knowledge of farming. He said the much larger proportion of our teachers were females, and the majority of these would be afraid to go near a cow, much less being capable of teaching. He said he would rather see a child read a good agricultural newspaper than have him study the majority of text-books, and he thought that a young man would learn more by the establishment of farmers' clubs and agricultural libraries, and by the reading of good newspapers, than he would learn by sending him to an agricultural school.

Rev. Dr. STEBBINS was then called on. He regretted that his time was so brief, as he had desired to go thoroughly into the consideration of the subject, but he should confine himself to the general heads of what he proposed saying. This matter of agricultural education, said he, is what

we shall teach the scholars, as he took it for granted that a boy or girl could as soon learn the names of things as the abbreviations; it was easier to learn the component parts of a handful of soil than it was to analyze a sentence in Milton. And if teachers were so disposed, they would find it much easier and more profitable to teach their pupils the names of the birds flying over the school house than to teach them to enumerate billions.

The speaker said that the question was, what can be done practically? The Commonwealth are sustaining some 40 scholarships; put these boys in the scientific school, and in three years they can get into our high schools and teach our boys and girls; and this course the speaker said would be a much quicker method of teaching agriculture than our Legislature would take, he was sure. Then take our Normal schools, to the success of which he alluded in high terms, and instead of devoting so much time to the higher branches of mathematics, teach the pupils chemistry and botany in the fields. This can be done and should be done.

Alluding to ladies studying experiments in agriculture, he said that no lady need be ashamed to say she has tried such experiments, and it should be a matter of pride to her to say that she has done so. He closed by saying that it would be better, in our high schools, if, instead of spending so much time in the study of the higher branches, the scholars should learn the rudiments of farming.

Dr. GEORGE B. LORING, of Salem, said he was not certain that our farmers did not themselves possess the elements of agricultural education. He had thought, when listening to an argument before the Agricultural Committee a few days ago, that we should engraft into the minds of our children a respect for the profession of their fathers, and a love for farming. We don't, said he, want Boston to draw away the life-blood of the State, but we want to render farming, by education, so pleasant, as to induce Boston boys to engage in it.

Mr. Loring suggested the basis of a manual of agriculture for our schools, to state what agriculture is—how respectable, and important and useful—how to plant, to plow, and further, how to apply the science of agriculture in the district to be farmed; showing the different breeds of cattle, pasturage and other matters of practical use.

He said that he had found from conversation with farmers in different parts of the country, that they knew more about what they could produce than could be told them, and what was profitable in one place, was not so in another. He concluded by saying that he granted we wanted an agricultural college, and he had no objection to a county school, but he wanted the people to come and ask for these, before they were established.

It was announced that the discussion of the same subject would be continued at the next meeting.

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY JANUARY NUMBER OF N. E. FARMER.

*Page 9—Calendar for January.*—The example of the merchant and the man of business, who at this season of the year take an annual review of their transactions, take stock, foot up their books, and ascertain the results of the labors and speculations of the year, is in this article very appropriately placed before the farmer for his imitation. And it would surely be a satisfaction if farmers should more generally be at the pains to keep such debtor and creditor accounts with their several fields and crops as to be able to determine which of their crops, products and modes of management were yielding them the most remunerative returns. Then, too, besides the satisfaction there would be a positive and pecuniary advantage, for they would thus be able to decide what departments of their business yielded the largest returns, and thus obtain the best possible guidance for their future proceedings.

Farmers might, also, make a retrospect of the year from another point of view, contributing at once to their own advantage and to that of others. They might take a review of the year for the sake of deriving from it all the lessons and hints it might be capable of furnishing. Every farmer of an observing and reflecting turn of mind could derive lessons of value either to himself or others from the events of every year, for whether his labors and modes of management have resulted in failure or success, a valuable lesson for future guidance might be derived from these results, of whichever kind they might be. Those hints and lessons which might seem of little use to any but himself he might note down in a "Book of the Farm" for his own private use; while those which seemed likely to prove serviceable to some of his brethren, he might write out and give to the public through the columns of some agricultural paper.

*Page 12—Is Farming Profitable?*—Although Mr. Pinkham seems disposed to exaggerate somewhat in his pleadings on one side of this question, and thus to injure his argument, still it seems highly probable that the discussion of this question will eventuate in considerable good. One of the good results likely to come out of this discussion will consist in spreading abroad more generally a knowledge of the fact, which some merchants and consumers of farm products seem resolved to ignore or deny, that farming is not quite so profitable as many suppose, and that it yields smaller returns than most other kinds of business in which an equal amount of capital and labor is employed. Another good result may come of this discussion, if it should make more manifest to all concerned what are the chief reasons why farming proves profitable to some and not to others.

*Page 13—John Chinaman as an Agriculturist.*—The practices adopted by our brethren in China furnish hints which many might avail themselves of with not a little advantage. For example, the soaking of seeds in some kind of fertilizing liquid, before sowing or planting, is not as common in this country as it might be. It secures usually an early start and a vigorous growth in the early stages of vegetation. Our favorite steeps are prepared by



dissolving saltpetre and sometimes hen manure in water. In these we soak garden and some field seeds for twelve, twenty-four, thirty-six or more hours, according to the readiness or slowness of any particular seed to germinate.

*Page 15—Care of Old Apple Trees.*—From an experience of methods resembling that recommended in this article, we are confident that wherever it is adopted it will renew the youth of many a seemingly useless tree.

*Page 16—A Carrot Crop.*—It is gratifying to see proofs every now and then that this crop is raised more extensively and successfully than heretofore; for we are convinced that each cow and horse on a farm might derive both comfort and increase of usefulness from the occasional use of this root—to the extent, say, of forty or fifty bushels each, during the fall and spring months.

*Page 25—The New Plow.*—The testimony of Mr. Colburne in favor of this plow will be satisfactory over a wide extent of country: for he is pretty extensively known, both to the East and the West, as a man of good judgment, character and reliability.

*Page 24—Lice on Apple Trees.*—Admirable advice.

*Page 31—Pumpkins for Cows.*—Observation at sundry times has confirmed me in the opinion that the seeds of pumpkins cause so much increased action in the kidneys as to effect a considerable decrease in the secretion of milk in cows. To many fowls pumpkin seeds are poisonous, and cause death.

*Page 40—Dadd on the Diseases of Cattle, &c.*—It would be well for man and beast, if every one would heed your remark, viz: "A proper care of stock will prevent most diseases; and when it has invaded the system, nature left to herself will ordinarily do more to effect a cure than all the nostrums of the shops." MORE ANON.

**JAMINETTE PEARS.**—The beautiful pears sent us by "*A Subscriber, Salisbury, Mass.*," are the *Jamiette*, so called because they were raised by M. Jaminette, of Metz, from the seed. It is an excellent winter pear, produces abundant and regular crops, and is well worthy of general cultivation. We have it growing in our grounds, and answering to those sent us, and the description given by Downing is as follows:—

"Fruit of medium or large size, varying in form, but mostly obovate, a good deal narrowed at the stalk. Skin, clear green, paler at maturity, considerably marked with russetty brown, especially near the stalk, and sparkled with numerous brown dots. Stalk scarcely an inch long, rather thick and obliquely planted, without any depression. Calyx open and firm, set in a basin of moderate depth. Flesh white, a little gritty near the core, but very juicy and melting with a sugary, aromatic flavor. Ripe in November and December.

Mr. E. MEHURAN, of Middletown, Vt., has a fat ox, six years old, which weighs 3000 pounds. He is of a bright red color, very short legged, and if he lives to grow up, will be a credit to his owner.

#### A FARMER'S BAROMETER.

The introduction of the subsoil and steam-plows, seed-sowers, seed-separators, new machines for mowing and reaping, the introduction of new plants and fruits, and the art of thorough drainage, are not to be in the future the only items of progress on the farm, or topics of discussion in the farmer's family. Another kind of investigation has already been introduced through the aid of measures, scales, books, the microscope and the *barometer*.

Whatever pleases, while it instructs the younger portions of the farmer's family, will greatly tend to attach them to the soil, and to supply that skill which has never yet been brought to bear upon our modes of farming. It will be long before the truth will be received into all minds, that *the atmosphere is the great store-house of supply* for our plants, and that a deeper and more reliable knowledge of its action is essential to a successful husbandry.

For several years past we have had a barometer hanging by the door, and have been pleased and instructed by its timely and valuable warnings. The recent examination of a new, simple, and yet effective instrument, has brought its importance to mind with a new freshness and interest, as our reflections have suggested the great value which it may prove to agriculture when it becomes common, and its teachings are properly regarded. The instrument to which we have alluded, and which is now before us, is the invention of a Mr. TIMBY, and while it is constructed upon strictly scientific principles, is also a beautiful ornament for the library or parlor, where its perpetual suggestions must have an important influence upon both mind and business. In reference to this particular barometer, the *Scientific American* "bespeaks for it a universal adoption, especially among agriculturists, as they, more than any other class save seamen, need the council of this faithful monitor, which leaves nothing to conjecture, but tells with promptness of the coming storm long before a threatening cloud is visible in the sky." Mr. TIMBY, as we learn, has not only introduced the first marked improvement in this instrument, but has so reduced the cost as to enable most persons to avail themselves of its advantages.

As great as the value of the barometer is acknowledged to be to the navigator, a little reflection and investigation will satisfy many that its common use will be of scarcely less importance to the tiller of the soil. Let us bring to our aid, for a moment, the omnipotence of figures, and see what revelations they will unfold. The United States Census of 1850 gives the valuation of the agricultural products of the country, (but only includ-



ing that portion of the crop which is easily damaged by getting wet while being harvested,) at more than *nine hundred and fifty millions of dollars*! It is supposed to be a fair estimate, by good judges, that there is an average loss of *five per cent.* on all the crops harvested in the country, because most crops that are injured by storms or by a succession of damp and cloudy days, are injured much more than five per cent., so that the average on the whole may be fairly set down at that sum. If the value of the barometer, in the hands of observing and intelligent farmers is not over-estimated by the most scientific men of this and other countries—such men as Dr. ARNOT, Prof. SILLIMAN, Dr. DICK, Prof. HENRY, Prof. MAURY, and others—it is fair to suppose that a large proportion of this loss might be prevented, and thus a gain made to the farming community of about *fifty millions of dollars* annually! Another item worthy of consideration is, the increased cost of harvesting a damaged crop. If by the general use of the barometer this could be prevented, another sum, of startling magnitude in the aggregate, might be saved.

The little, unpretending barometer, hanging in the saloon of one of our splendid ocean steamers, warns the watchful pilot of the approach of an impending iceberg, even amid the gloom of the darkest night! Why may not its admonitions be of equal value to as much property exposed to the elements on the land, and teach us to shun the losses which annually depreciate the profits of the farm?

*For the New England Farmer.*

#### WINTER BUTTER AGAIN.

MR. EDITOR:—To ascertain the best mode of making winter butter is of a good deal of importance, for there are many tons made in the State every winter. You must have patience with us, as we correspond with each other to find the best "*modus operandi*," of its manufacture. In the *Farmer* of January 28, your "South Danvers" correspondent, in allusion to my article, stating my method of butter-making in the winter, expresses surprise that any one who feels competent to instruct others in this matter, should think it necessary to use the juice of carrots to color it. Let "South Danvers" try it, and he will lose his surprise. He is not the only one that has been surprised in lessons of improvement. Worcester county is not behind any other, to say the least, in butter-making, and I know that some of the best dairy-women in this town and county use the carrot in butter some six or eight months in the year. Let me surprise "South Danvers" again by telling him that one of the best dairies in Princeton, and one that has taken more premiums within the last fifteen years than any other in Worcester county, and probably in the State, never makes a single pound of butter after September, till the next summer, without carrots. Yes, more high premiums have been given to WILK ROPER,

of Princeton, (and justly awarded, too, I doubt not,) at county shows in Worcester and Barre, than to any man in the county, and those premiums were awarded by the best judges of butter that could be selected. Further, Mr. Roper took the first premium at the State show (in 1858, I think,) on tub butter, and would have taken the first also on lump butter\* had the laws of the society permitted both to be given to the same dairy. Mr. Roper has often told me that he never makes butter in fall or winter without carrots. I know it will surprise "South Danvers" greatly to know that the best premium butter in Worcester county, or the old Bay State, is colored with carrot juice. But it is a fact, and facts are stubborn things.

Let "South Danvers," or any one else that doubts this improvement, try it, and he will be surprised to find that his stock of wisdom, in making winter butter, may still be improved.

Yours still for improvement,

Princeton, Feb. 13, 1860. J. T. EVERETT.

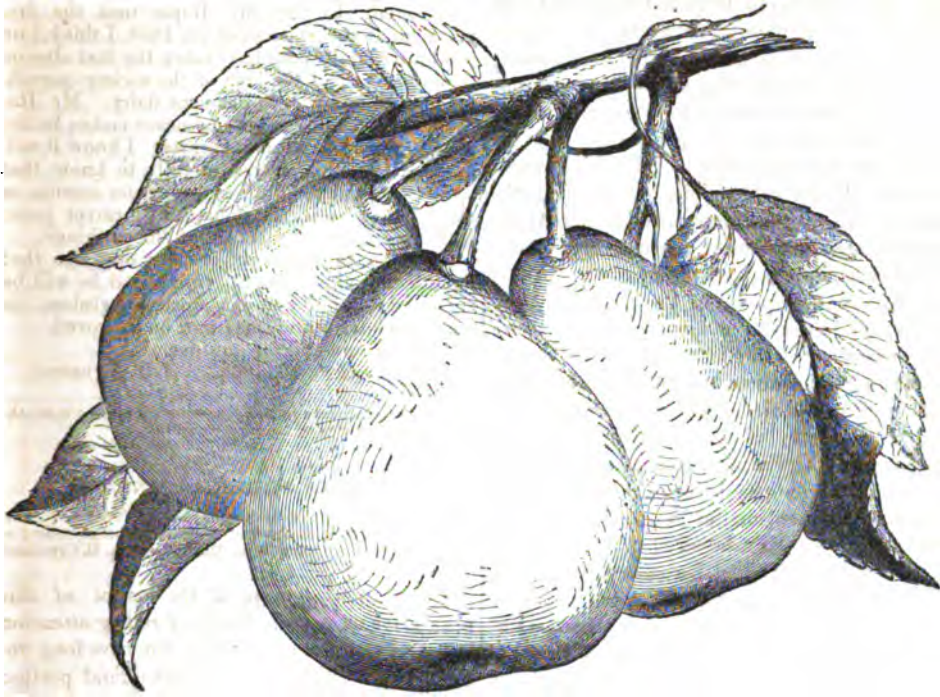
\* The first State premium on lump butter was given to another dairy in Princeton by the same committee.

#### NEW PUBLICATIONS.

STATISTICAL AND HISTORICAL ACCOUNT OF THE COUNTY OF ADDISON, Vt. Written at the request of the Historical Society of Middlebury. By Samuel Swift. Middlebury: A. H. Copeland. 1859. 1 vol., pp. 132.

The acknowledgment of the receipt of this work gives us an opportunity of calling attention to a section of country which we have long regarded as naturally the best agricultural portion of New England—we mean the Champlain valley, of which Addison County, Vermont, is, at least, a favorable specimen. The county extends from Lake Champlain into the Green Mountains. The soil of the eastern portion is generally loam of variable compactness, and some is rocky, gravelly, or sandy; on the streams alluvial; and on the lake are extensive flat lands, "composed of clay, with a mixture of vegetable substances, which were obviously once the bottom of the lake." When first cultivated, this section was as celebrated for the production of wheat, as it now is for its fat cattle, fast horses and fine sheep. Several years ago the editor of the *Albany Cultivator*, after visiting Addison county, said, "We have never seen any other land which is capable of sustaining as much stock to the acre." It is claimed by observing farmers there, that the finest imported sheep sensibly improve in this county, and that "there are better flocks in the county of Addison than in any other part of the world."

Those of our readers, however, who have any particular interest in this county—and we think it would be well for many who are dreaming of prairie-land to share that interest—will wish to procure a copy of this well written and full statistical and historical account, to a single feature of which we have alluded. The publisher will forward a copy by mail, pre-paid, on receipt of the price—fifty cents.



#### BEURRE KENNES PEAR.

The Beurre Kennes is a fine new Belgian variety, described and figured in the third volume of the *Annales de Pomologie*.

*Size*, medium. *Form*, pyriform, inclining to turbinate, some specimens flattened at the poles. *Calyx*, sunk in a moderately deep cavity. *Stem*, about one inch in length, planted on the apex, sometimes in a fleshy ring or protuberance. *Color*, brownish green, colored with a thin gauze-like covering of russet, stippled with red and gray dots; at maturity yellowish, suffused with a mixture of brown and crimson on the sunny side. *Flesh*, yellowish-white, melting and juicy. *Flavor*, sweet, rich, with a very agreeable aroma. *Season*, October to November. *Quality*, "best." The tree succeeds well on the quince stock, bearing regular and abundant crops, but has not yet been proved on the pear stock. The fruit is borne in clusters, and adheres strongly during the gales of autumn.

**ABOUT CORN.**—What becomes of the corn crop? According to the last census, the corn crop of the United States, in the aggregate, amounted to about 600,000,000 bushels annually. How and in what

manner is such a vast amount of grain consumed profitably for the producer? Of the crop of 1850, about 4,500,000 bushels were exported, and more than 11,000,000 bushels were consumed in the manufacture of spirituous liquors. The balance was used at home, as food for man and beast. Since that time, the amount consumed in the manufacture of alcohol and high wines must have largely increased to keep pace with the growing demand for alcohol in the manufacture of burning fluid.—*Prairie Farmer*.

#### ADVANTAGES OF A HEAVY SOIL.

A clay soil well under-drained, is undoubtedly the most perfect soil in existence. I have heard cultivators say they did not want a soil that needed any artificial drainage; in other words they desired one so light and porous that water could not be long retained by it. Long experience has led me to a very different conclusion. A porous soil will not retain manure long enough to become as fertile as I wish, and the cost of frequent manurings which it must receive, if I get large crops, is not a small item. On the other hand, a heavy or strong loam will hold for a great while all it gets. But unless a heavy soil has a porous subsoil, which is very rare, it will not allow the water to drain off so readily as good farming requires—passing, as

it must, during this drainage, across the whole breadth of a large sloping field. But every disadvantage is removed if we tile drain it—the manure is retained, and the water flows quickly off. We must not expect to find a perfect soil to order. I once asked one of the most skilful and eminent cultivators in this country, what was the relative value of a decidedly sandy soil, and a strong or clayey loam. His answer was, “If you give a hundred dollars an acre for the sandy, you can afford to give two hundred dollars for the strong loam. For you can do whatever you like with it. Manure will enrich it to any extent you wish; and by complete tile-drainage, you can render it fit for any use.”—*Correspondence Country Gentleman.*

*For the New England Farmer.*

#### NORTH GROTON, N. H.

This portion of Groton, though, territorially considered, very near the centre of the town, is by way of distinction called North Groton, from the fact that the first post-office established was designated Groton, although located in the southerly part of the town, and hence, when the public good, and the convenience of the inhabitants required another office, the name of the original office would have to be changed, or the new office must have a prefix, and the citizens agreed upon *North*.

This is a pleasant township; the surface generally undulating, not mountainous, after a rise of about a mile from the valley of Baker's river; it is well watered by branches of Baker's river and several other streams, which fall into Newfound lake, and one considerable pond. The soil is productive, and easily worked, and adapted to all the grains, roots, and most of the fruits of other portions of New England. The timber is mostly spruce, hemlock, sugar maple, beech, birch, some pine, &c.

The climate, of course, is somewhat variable, not so much so, however, as it is nearer the sea-coast, but judging from the health and longevity of the inhabitants, it is peculiarly healthy. Groton is in Grafton county, and is bounded, north-east by Rumney, south-east by Hebron, south-west by Orange, and north-west by Dorchester. It is 10 miles from Plymouth, half shire-town of Grafton county, 45 miles from Concord, 29 miles from Dartmouth College, 29 miles from Haverhill, the other half-shire, 90 miles from Portland, and 120 miles from Boston. It is true that this section of country is in a high degree of latitude, and the winters are longer than in more southern climes, but the disadvantage, if it be one, is more than compensated by the unrivalled purity of air and water.

The inhabitants are mostly independent and forehanded farmers and mechanics, and for moral and social virtues, and general intelligence, they stand deservedly high. Great interest is manifested in the cause of popular education. Indeed, according to the report of the New Hampshire Board of Education, the schools of this town occupy a very high position; they rank as high as the highest. A few days since the School Commissioner for Grafton county, Prof. PATTERSON, of Dartmouth College, visited the school at this place, and delivered an address at the church in the evening to an attentive and deeply interested au-

dience. The occasion was one of much interest, parents and scholars participating. The people of this town, too, are alive and active in every good cause and work. A short time since, the pastor of the congregational church, Rev. Mr. CONANT, was greeted by his parishioners and friends with a visit, leaving behind them many substantial tokens of love and regard for him, as their pastor, and respect for him as a faithful and devoted minister. Subsequently a large number made the Rev. Mr. KENNE, a retired clergyman, who for a time has been suffering with ill-health, a similar visit. Sectarianism does not seem to influence adversely the benevolent “bump” of the good people of Groton.

In the former case, the Rev. Mr. Conant is a thorough going trinitarian orthodox of the old school. Yet not only brethren in that faith, but Baptists, Universalists, Methodists, &c., alike freely gave, and freely joined in the social festivities of the occasion. In the latter, Rev. Mr. Kenne is a Calvinistic Baptist; but his visitors and almoners represented all of the persuasions enumerated above. Now this seems to me to be an exhibition of a true Christian spirit, disinterested benevolence, and the right sort of charity.

That Groton is thoroughly a cold-water place, may be learned from the fact that there is no agency, nor public house, nor store, nor place of any kind, where intoxicating liquors are kept or sold; and only one man in the whole town, who is known habitually to use them in any form.

Knowing that the *New England Farmer* is a welcome visitor to many of the households of Groton, I have said thus much, intending, if agreeable to your *corps editorial*, to keep you posted in reference to matters of interest in this locality.

*North Groton, N. H., 1860.*

B.

**RAISING PORK.**—At a discussion by members of the Ohio Agricultural Society, Mr. Taggard, of Wayne, said:

I keep a sleeping and dining-room for my hogs, warm and clean. Thus I save one-third of the feed. Don't crowd my hogs with feed. Get corn meal and scald. Have such hogs as mature early. Keep them till May, and ring them and turn them into the clover field. Give them a little corn.—Leave them there until the first of September, just when the corn begins to harden. Cut up corn and throw to them three times a day; more value in your corn and stalk then than afterwards. One bushel of corn in September will fatten more than one and a half bushels in December. A hog will pay for good keeping as well as a horse or ox. Kill November 15th. Don't like Suffolks.

**MR. GREGORY'S ADDRESS.**—We have received a copy of the Address before the Essex Agricultural Society for 1859, by James J. H. Gregory. Starting with the axiom that “for every effect there is a cause,” the speaker, by forcible and well-stated considerations and illustrations, draws attention to the importance of correct observation and exact experiments to the farmer, with reference to the elevation of his nature and the improvement of his calling.

*For the New England Farmer.*

# TURNIPS—THEIR VALUE IN FEEDING STOCK.

MR. EDITOR:—Believing fully that the value of the common flat turnip is by many under-estimated, I wish to give you a fact or two in regard to their use in the fattening of cows. Five or six years ago, having about a thousand bushels of turnips to dispose of, it occurred to me to purchase a few cattle to stall-feed for beef. Among others, there was one small cow, very old and quite poor. She ate the turnips freely, thrived well, and in due time was turned off to the butcher and slaughtered. We took a quarter of the beef, and during the time it lasted, the remark was frequently made by one and another of the family that it was the juiciest, the richest, the best flavored beef we ever had bought of the butcher who usually supplies us. This opinion we have remembered, without feeling confident that the turnip feed had any particular connection with the quality of the meat. But within a few weeks past, I have sent another cow, (a young one) to the butcher, that was fed and fattened on turnips and meadow hay, having had no grain of any sort till the last fortnight of her life, when the turnips were discontinued and four quarts of meal a day and English hay were substituted, that the turnip flavor might have time to pass away from the meat. Being well supplied with meat at the time, we took none of this; but have the testimony of a neighbor and friend, whose family were supplied with some of it, that it was of superior quality.

Now it must not be understood from this, that I fully and unhesitatingly believe that turnips will always make beef of extra quality, but my faith is so strong, that I shall not fear to make another trial when circumstances are favorable; and I should not hesitate to recommend the turnip as a cheap and valuable feed for the production of flesh or milk. In feeding to milch cows, of course the quantity should not be large, or the flavor of the milk will be affected. But to a fattening animal, after she has become so accustomed to them that they will not unduly scour her, a bushel and a half a day, if she will eat so many, will not injure her. But it should not be forgotten that the turnips must be discontinued for at least ten or twelve days before she is slaughtered, or the meat will have an unpleasant taste of the turnip.

I was about to stop here, but it occurred to me that my friend, J. P. B., (who likes to laugh at his neighbors sometimes, when they make a blunder or a bad bargain,) might ask why I did not tell about my experience in fattening a pair of steers on turnips. So for fear that he will tell the story, with embellishments, I will give it here. At the time before mentioned, when I had such a heap of turnips to feed out, I bought, among other animals, a pair of steers, for which I gave seventy dollars. I made my estimate what they would weigh at the time of the purchase, and what they would gain as the result of eating one or two hundred bushels of turnips, with hay and grain added; with the probable rise in the price of beef before they would be sent to the shambles. Well, the result was of course quite satisfactory. A very respectable profit was to be made on these steers. But, Mr. Editor, did you ever make calculations that were not realized? I have, and this was

one of them. The steers were placed in the barn, and the turnips laid before them. They put their noses down, smelt of the nice sweet turnips, then looked at me and said, "Humph! have you nothing better than this for us?" "O," said I, "you are not used to turnips—you don't know what is good." I left them for a time, thinking they would by-and-by taste, and so find out that turnips were good for steers. But they did not taste, and so I found I must try them with something else. So I offered them some Indian meal, but with the same result, they smelt and left it. I thought that by keeping them hungry for a few days they might be brought to eat turnips; so they were fed for a week or two lightly with hay, turnips being frequently offered; and after a while, they consented to a compromise, and agreed to eat a few of the turnips if I would give them a plenty of good hay. But they never seemed to like them. And meal they would not eat. So you will not be surprised at the result. When they were sold I received, after feeding them some three or four months, about *two dollars less* than I gave for them. Is farming profitable? M. P.

Concord, Feb. 14, 1860.

*For the New England Farmer.*

## AGRICULTURE AT YALE.

LETTER FROM JUDGE FRENCH.

MY DEAR MR. BROWN:—Boston is a great city, but New York is so much greater, that here, within two or three hours of her, our modern Athens seems not to be much considered. Here I have been for three days, and not a Boston paper can I find in either of the hotels, while the New York dailies load the tables. Possibly the secret of this may be guessed, when it is known that the *Tribune* and *Times* have their reporters here, carefully reporting the interesting proceedings of the month, while no Boston publisher seems to think it worth his trouble to notice the movement.

The *Farmer* has already published the plan of the Agricultural course of lectures now in progress here. Professor Porter, of the Scientific School, is the prime mover of the scheme, which, in brief, is a course of about seventy lectures upon Agriculture, given three or four a day, at convenient hours, all at one place, so that any person may attend the whole. Tickets to the number of about one hundred and fifty, at ten dollars each, were disposed of, mostly to young farmers, scattered through New England, New York, and many other States. Most of these attend regularly the whole course; and many others come in for a week or more to attend the discussions upon subjects which particularly interest them. The first week was devoted mainly to *Agricultural Chemistry, Entomology, Vegetable Physiology and Meteorology*, and the lectures were given by Profs. JOHNSON and SILLIMAN, of Yale College, and by Dr. FITCH and D. C. EATON, Esq. Col. WILDER,

on the second week, led off on the subject of *Fruits*, in his usual happy manner, followed by Dr. GRANT, upon the *Grape*, Mr. PARDEE, upon *Berries*, Mr. BARRY, upon *Fruit Trees*, Mr. ALLEN, upon *Fruits*, and Mr. G. B. EMERSON, upon *Trees*.

It is doubtful whether the world can produce another set of men so well qualified to instruct a New England audience upon these subjects as those who lectured during the last week. This, the third week, has been devoted to *Agriculture* proper. LUTHER H. TUCKER, of the *Country Gentleman*, is lecturing upon *English Agriculture*. Your humble servant is presenting the subject of *Drainage*. Prof. BREWER talks of *Tobacco* and *Hops*, JOHN STANTON GOULD, of *Grasses*, T. S. GOLD, of Conn., of *Root Crops*, LEVI BARTLETT, of New Hampshire, of *Sandy Soils*, JOSEPH HARRIS, of *Cereals*, Dr. PUGH, of *German Agriculture*, and Prof. PORTER, of *Agricultural Statistics and Education*. An eloquent lecture by Hon. JOSIAH QUINCY, Jr., on Wednesday evening, was received with bursts of applause.

The fourth week will be opened by CASSIUS M. CLAY, of Kentucky, on *Cattle*, and Messrs. ALLEN, of New York, FLINT and HOWARD, of Boston, upon the *Dairy* and *Horses*, Dr. GULLIVER, upon *Horses*, Mr. GOLD, upon *Sheep*, Mr. COMSTOCK, upon the *Breeding of Fish*, and Mr. WELD, on *Agricultural Associations*.

DONALD G. MITCHELL, known as Ik Marvel, the author of some of the most charming books in our literature, "The Reveries of a Bachelor" among others, is to deliver the closing lecture on *Rural Economy*. His bachelor reveries have been disturbed by the acquisition of a small family, and he is now much interested in agricultural pursuits.

The lectures are designed to be of a practical nature, and to be given in a familiar way. After each lecture, any person in the audience puts such questions as he pleases, and hours are assigned for familiar discussions of such subjects as the class may select.

This movement of Prof. Porter is worthy of all praise. It is a progressive measure, I think entirely novel in this country, designed to be followed up in succeeding years, with such modifications as may be thought best. A large and convenient building for the use of the Scientific School is now in progress, and the lecturers of next year will have the advantage of a Museum of Natural History to aid their illustrations.

Besides the lectures, New Haven has great attractions. Its society, in culture and true refinement, cannot, perhaps, be excelled in this country. The old college buildings and the public grounds planted with magnificent elms, in somewhat mathematical order, tell of the severe taste

of the olden times, while the elegant and classic modern dwellings, with their tasteful surroundings of evergreens dotting the broad lawns which are gracefully traversed by winding walks and drives, give evidence of affluence and the dignity of leisure from pressing worldly care. During the lectures, the duties of hospitality are not forgotten, and they who have gone to New Haven to study agriculture, have received those social attentions so grateful always to strangers in a strange land.

I regret that arrangements were not made for daily reports of the lectures in the Boston papers. A full proportion of the teachers if not of the taught, are from among those who read the Boston dailies, and the good effects of the movement might have been more widely diffused, had proper attention been given to this matter.

A similar course of instruction might easily be organized in Cambridge or Boston, or many more persons in future be induced to attend the lectures at Yale. The wide diffusion of knowledge among farmers, a class not reached by the ordinary means, through such an agency as this, can hardly be estimated. Every pupil becomes as it were a missionary to convey the new ideas thus acquired to his friends and neighbors, and a new impetus is given to the great cause of Agriculture.

New Haven, Conn., Feb. 16, 1860.

For the New England Farmer.

#### WORMS IN APPLES.

MR. EDITOR:—There is much complaint in this vicinity respecting a new (?) species of insects which have, by their secret depredations, rendered nearly worthless certain kinds of apples.

The insect, while in the apple, is a very minute worm or grub, scarcely larger than a pin, white in color, and rather more than an eighth of an inch in length. This is its full size; but when its operations within the apple first commence, it is so small that it is not easily seen with the naked eye. Its journeys in the apple are short at first, but they gradually increase in length until the whole interior is perforated through and through with hundreds of its little pin-holes, while upon its surface the apple looks as round as ever. Sometimes I have taken up what I supposed to be a sound apple, and it would crumble to pieces in my fingers; and I would find that several of these little pests had got the start of me and devoured or demolished nearly the whole of the apple except the skin!

So far as I have observed, personally, it seems to prefer sweetings, russets, and some common kinds for which I have no name; but its ravages are also extended to several other varieties.

They commence the work of destruction early in the fall, and carry it on to midwinter, certainly, and whether it reaches beyond this period or not, I am, at present, unable to decide.

While looking over some russets the other day, which had been very thickly inhabited with these

early settlers, I observed many very small bugs slowly crawling upon the inner sides of the barrel. They were of a dark chestnut color, and about an eighth of an inch in length. The thought occurred to me that perhaps these were the little grubs in their perfect form; but if so, where and when did they go into the pupa state, and how long did they remain in it? Several of the apples in which the grubs had been at work were examined and no worms could be found.

There is no mention made of this insect in Cole's American Fruit Book, nor in any work on Entomology which I have at hand, so I have ventured to inquire, through the columns of the *Farmer*, for information of any kind concerning this little marauder, the destructive habits of which threaten, at least in this region, to be a formidable barrier to the most important branch of fruit-raising.

In reading the report of the third meeting of the present series of the Legislative Agricultural Society, I saw that the question was asked, "What should be done to prevent so many of our apples becoming so wormy;" and the statement made, "that nearly three-fourths of the crop in Worcester county had been spoiled the past season by this trouble," but no description was given of the worm, or any of its habits. It would be interesting to know if it is identical with the insect I have partially described.

S. L. WHITE.

Groton, Feb. 7, 1860.

For the New England Farmer.

#### CULTURE OF PINE TREES.

DEAR SIR:—In accordance with my promise made to you, I will now give you some account of the "Culture of Pines" on our Island. I think it was in the spring of 1846 that Mr. JOSIAH STURGIS, (now of California,) planted a lot of five acres, after taking off a crop of corn the year previous, with the seed of the common hard pine of Cape Cod. The seeds were put in with a common seed planter, in rows about six feet apart, and came up in the rows from one to four feet apart. Two years afterwards he planted five acres more adjoining, sowing broadcast, and harrowing in a mixture of the hard pine seed with that of the "*Pinus Montimo*," of France, both of which came up well and grew finely. In 1851, Mr. Sturgis called on me to look at them, and also proposed to me to buy several hundred acres of land in company with him, and plant it. I found his trees looking healthy and vigorous; some of those of the first planting were five feet high, and about five inches thick near the ground. We purchased about four hundred acres of light sandy land, for about two dollars per acre, and expended about one thousand dollars in procuring seed from Barnstable county, and in the spring of 1852, planted the whole tract, using a planter with a sharp cutter to cut the sward, and a common cast iron broad harrow or cultivator tooth following, and the seed dropped behind. This method planted the seed too deeply, but enough came up, had they not been killed by a severe drought, and by the ground moles which ran along the rows, leaving a hollow space beneath the young trees. The following year we put in three spike harrow teeth, which just scarified the surface, and the trees

came up abundantly, and neither drought nor moles disturbed them, and now the largest of them are six feet high, and three to four inches thick near the ground. This last method of planting is not the best. I think the better way is to plow the ground and cultivate it one year, and then plant it with a common seed planter. Until 1852, the common and French pines had grown alike, but in this year, the French grew about twice as much as the others, and in some instances the centre spike grew three and a half feet in length and near an inch thick.

I now gave my whole attention to the *Pinus Montimo*, and imported over fifty bushels of seeds, and several hundred acres have been planted with them. In the fall of 1855, many of the first trees of the French kind, which were planted by Mr. Sturgis, were fifteen feet high, and six inches at the trunk, but the following winter when the thermometer stood for several days at or near 12° below zero, many of the finest trees were killed. Those of mine which were only a few inches high, and covered with snow, survived, and are now doing well.

The last tract which I planted was planted in summer, sowed to rye in the fall, and planted with the seed planter in the following spring with the *Pinus Montimo* seeds, and the trees are now growing well. The cost of the land was about two dollars per acre, the plowing three dollars, the seed rye one dollar, the pine seed two dollars, the planting one dollar, making nine dollars, and it produced twelve bushels of rye, which sold at one dollar per bushel; the straw was worth more than the cost of harvesting, thus making a profit, after allowing another dollar per acre for harrowing, of two dollars per acre, and the land all planted to pines, beside.

Many persons think our waste, barren lands can be used more profitably by stocking them with sheep, than in any other way, but let us make some figures and see what they will say, for they always tell the truth when properly used. An acre of land will cost about two dollars, and it will take about two acres of it to feed one sheep during the summer. It will cost about one and one-half dollars per acre to stock it with sheep, and about the same to plant it with pines, supposing the crop of rye only pays for its own cost. There is no doubt but the land will, in thirty years, produce twenty cords of wood per acre, which is now worth here, six dollars per cord, and deducting for cutting and carting two dollars per cord, will leave four dollars, which is equal to eighty dollars, for the thirty years, or two dollars and sixty-six and one-half cents per acre per annum, or three dollars grown to eighty-three in thirty years. If any sheep husbandman can make up the other side of the account to match this, I shall be pleased to hear from him.

E. W. GARDNER.

Nantucket, Feb., 1860.

SOAKING SEED WHEAT.—Mr. Walter R. Neal, of Maysville, Ky., writes to the *Rural American*, that in the fall of 1858 he prepared 20 acres of land for wheat, and at the same time his brother, whose farm adjoined his, prepared ten acres. The land, seed and mode of preparation, and time of sowing were the same. The only difference was,



he says, "my brother soaked his wheat before sowing, in strong brine, and then rolled in lime; while I sowed mine without either. Now mark the result. At threshing time my yield was 13½ bushels to the acre, which was about an average yield in the neighborhood, while my brother's averaged 22½ bushels to the acre. Still further, my wheat was damaged with the smut, while my brother's wheat was entirely free from smut and all foreign seeds."

#### EXTRACTS AND REPLIES.

##### LEGHORN FOWLS.

The inquiry of your correspondent for the best fowls for laying and for cold weather induces me to say that the Leghorns have done the best with me of any I have ever kept. The Black Spanish are good layers in warm weather; but these lay in warm or cold weather. They commence to lay when about four months old, and have continued without offering to set, till now, February 7; and although they have froze their combs, they have laid all the time. I have had but eight hens, and they have laid thirty dozen eggs since the last of November. They hatch well; and I have never lost one by disease. I consider them very hardy. *Foxboro', Feb., 1860.* L. R. HEWINS.

REMARKS.—Our correspondent states that he has no Leghorn fowls to sell, excepting two or three roosters, but can furnish a few eggs. He will please inquire of nurserymen for the grape vine he wants.

##### ABOUT FEEDING BEES.

FRIEND BROWN:—I noticed in the last *Farmer*, a gentleman in Salisbury wants to know how he shall feed his bees. I will tell him how I feed my bees when they are short of honey. Go to some one who has taken up a swarm of bees, and get a few pounds of honey in the comb; that from an old swarm is the bet, because there is more bee-bread in an old swarm than a young swarm. Take about one pound of honey and comb and place it on a plate, put two little sticks under the honey, in the plate, so that the bees can go under as well as over the honey, and if it is too cold for them to come down on the bottom board, carry them into a warm room, and they will come down and carry it up into their comb. It will last them about two weeks. I think this a better way than to feed them on candy, unless they like it better than I do.

*Chester, N. H., Feb. 7, 1860.*

##### CLOVER HAY FOR MILCH COWS.

Some say that clover hay is in no way suitable for cows; but brother farmer, I will tell you what one of my cows did one week on clover hay. Her feed consisted of clover hay, first crop, one peck carrots, and three quarts of cob meal per day. The result was fifteen pounds butter. Some days her milk weighed fifty pounds. I doubt not but if her hay had been cut it would have amply paid the cost. The cow is about five-eighths English, the rest native.

A SUBSCRIBER.

*Deerfield, Mass., Jan. 26, 1860.*

##### TAKE CARE OF THE EYES OF YOUR HORSES AND CATTLE.

Should your horses or cattle injure their eyes, so as to bring on a white substance or film, as it is sometimes called, do not, as I have seen some do, spit a mouthful of tobacco juice, or blow a quill full of snuff, into the eye; but let me tell you a better way. I take fresh butter newly churned, melt about one table spoonful, and turn it into the ear opposite the eye injured, being careful to hold the ear tight together so that they shall not by a violent shake of the head throw it out of the ear. This remedy may be safely applied if you do not use them when the film is coming off.

C. A.

*New Haven, Ct.*

##### INDESTRUCTIBLE WATER PIPE.

An inquiry was recently made in your paper as to what is the best kind of pipe to convey water? I would recommend the indestructible water pipe as the best and cheapest. Pipe of one inch bore can be delivered on the steamboat wharf at Camden, Me., all complete, for ten cents per foot; elbows ten cents extra; other sizes in proportion.

GEORGE COLLINS & Co.

*Camden, Me., 1860.*

##### SUGAR BEET SUGAR.

Can any one give me the process of manufacturing the juice of the sugar beet into sugar? It is said that lime is used—but in what state the lime is, or in what condition the juice of the beet, whether before or during the process of evaporation, and in what proportion, I have not learned.

*New Ipswich, Feb. 11, 1860.*

W. D. L.

##### PLANTING AND PRUNING PRIVET HEDGE.

Will the editor of the *Farmer*, or some one who has had experience in growing the privet hedge, inform me how near together the plants should be set, and of the time and manner of trimming.

*North Bridgewater, Feb., 1860.*

J. T. B.

REMARKS.—We have never cultivated the privet, and leave the reply for those who have.

##### DISEASE AMONG CATTLE.

I have a disorder among my cattle that some call scurf, or runrounds. Please tell me what will cure it, and oblige

JOHN J. LANG.

##### HINTS ON SHEEP MANAGEMENT.

Mr. L. W. Green gives in the *Michigan Farmer* the following ways and means of getting up the right kind of a flock:

First, then, I allow my ewes to breed till the spring they are three years old. I never desire to see twins. If they make their appearance, I give them an extra chance to keep them up with the rest of the flock. I never breed from any old broken-down ewes. I never allow my buck or bucks to run with the flock at any season of the year. I had rather tend my buck with one hundred ewes than turn him in with twenty-five. This course is very beneficial to the buck, and still more so to his stock. These are points that



any one will admit, that will reason for a moment. I never allow more than forty sheep to run together. I never keep my sheep in pastures where they cannot get on dry ground to stand or lie down. I raise carrots or rutabagas for my sheep instead of feeding grain. I have my lambs begin to come about the 20th of April, and take them away from the ewes about the 20th of August. In this way the lambs become weaned and take to feed before cold weather begins, and the ewes get up in grand order before winter, besides they are much more likely to bring lambs the next season. If at any time I have a sheep that does not appear to do well, I take it immediately from the flock, and if it does not readily recover, I kill, sell, or give it away. I give my sheep some kind of shed in winter to resort to when they choose. I never care about sheep having drink in the summer, if they have good pasture. Care should be taken not to give too much salt in hot, dry weather, where there is no water in the pasture. I keep a careful watch over my flock, and if I have any ewes that do not breed to suit me, I dispose of them and their stock. Much care should be taken with regard to injudicious crosses among sheep as well as with other animals, and don't forget or neglect to give your sheep a sufficient amount of feed in winter, or pasture in summer, to keep them in good condition. There are many items too numerous to mention here that will suggest themselves to the careful observer as the process of care and feeding advances.

*For the New England Farmer.*

#### HOW TO THAW OUT PUMPS.

**MR. BROWN:**—During the late cold snap, some of your readers have been obliged to ride off to the pump-makers for help to thaw out their wooden pumps. I found out a way to do this work, some years ago, which ought to be published often. It is this: Provide a lead pipe: three-quarters of an inch size is very convenient; a tunnel, and hot water. Put the pipe into the top of the pump, resting it on the ice. Now pour in the water, holding the pipe with cloths, as it will become soon too hot for bare hands. The pipe will settle right down into the ice, and very soon the pump handle will be going again.

Every wooden pump in an exposed situation, should have a small vent below the platform, where all the water above might pass out, and leave the pump in a safe condition. Copper pumps should be attached to the lead pipe by a brass coupling, similar to those used on fire engine hose. Then when any thing gets into the boxes, or the pump happens to freeze, it can be unscrewed and taken down for repairs, or examination. A brass coupling will cost one dollar at a Boston plumbers, and its cost may often be saved in a single year.

W. D. B.

*Concord, Mass., Jan. 10, 1860.*

**CRANBERRIES.**—Will some of our correspondents inform us whether a natural cranberry meadow would be benefited by being thoroughly underdrained? That is, whether the meadow would be more prolific of fruit, or the fruit be larger and of finer flavor.

*For the New England Farmer.*

#### CRUEL TREATMENT OF HORSES.

The enlightenment and humanity of the present time are rapidly ameliorating the condition of the horse. Formerly, his treatment and management, by civilized man, was most unwise and cruel, but now, some believe that kind treatment and rational management are more economical and proper. Till of late, he has almost universally, when in harness, been tortured with the check-rein. Now-a-days, a small percentage of horse owners and managers do not use it. Some consider the rein to be both ornamental and serviceable. They have a fancy for a high head, and showy horse; and suppose, also, that this rein keeps the horse from tripping and falling—that it holds him up. *It is often the cause of his tripping and falling. It prevents his recovery from a fall.* With an unrestrained head he could more easily and readily prevent falling, when he might trip or stumble; or arise from a fall easier. He will not step any lighter and higher for the check-rein. It will no more hold him up than a man can be held up in slippery weather by a stock for his neck that throws his head back—face upwards! The check rein, that makes him a gazer at the sun by day, and the moon and stars by night, prevents his seeing the ground upon which he is travelling. When in motion, this check-rein causes quite a jar of the head, and a jerking of the bits upon the mouth.

The necks of horses differ in their formation, yet tasty coachmen and teamsters draw their heads equally high by this rein. In the days of stage coaching, a driver had all of his horses' heads checked up high and tort. One of the team could not draw up hill, so he whipped him soundly and severely at the hills, till a passenger observing the difficulty in the case of that horse, suggested to the driver the cause—that he could not work with his head drawn up so high—upon his being released from the check, the horse drew smartly up the hills afterwards. Drawing in the nose of the horse to his breast, by a short rein, or the martingale, cramps the cords of the neck and prevents the healthy circulation of the blood in the neck and head.

Blinkers are of doubtful utility. Horses are often startled by noises, the causes of which he cannot see with blinkers on. But the same noises do not affright them when not in harness, and they can see whence the sounds come. They increase the weight of the bridle, and deflect into their eyes both heat and dirt. It is not always that blinkers prevent skittish horses from seeing sights, at which they become affrighted, and the turning of their heads, then, away from these objects, rather increases than diminishes their fears.

The tail of the horse men have generally considered imperfectly made, unfinished naturally, so they cut off what they estimate worthless, or useless, the cords in it, and *set it up!* Some dock it, and then cut the cords upon its under side, and place it in the pulleys till it is stiffened, and will remain set up. Others fancy a long-tailed nag, with his tail set up, and perhaps will so cut and pulley it that it will remain bowed. The tail is a very serviceable instrument in its natural condition, for the horse to brush away the flies with, that so much annoy him a large part of the year;

when cut and stiffened, as it usually is, by the hand of civilized and humane man, the flies torment him unharmed. It is more graceful, unoperated upon, and is less in the way of the reins, when one is riding. It may affect the animal's strength to cut off these cords. The tail that has been set up, often trembles very much after he has been driven or worked hard.

The fetlock should not be shorn. God has seen fit to have the hair grow long there. There is rapid movement of the joint, chords and skin here, when the animal is travelling rapidly. Such length of hair is probably necessary for protection of this exposed part of the leg.

G. O. BETTON.

*For the New England Farmer.*

#### TAXES AGAIN.

MR. EDITOR:—I notice in the *Farmer* of today an article signed P., in reply to the few lines I sent you which appeared in your paper of Jan. 14. He says he "does not understand me to say that property should not be taxed equally and proportionately wherever it is found." Mr. P. is right. The object of my communication was to call your attention and that of your readers to the inequality of taxation, and your correspondent does not attempt to show that my position, in regard to the inequality, injustice and oppressive character of our laws, is not right; indeed, he admits, when he says that the "inequality would not be relieved by shifting the burden of taxation from the mortgager to the mortgagee, because all this would be guarded against by the mortgagee when he received his mortgage." If I understand him, his argument is simply this: the law is just as you represented it—unjust, unequal and oppressive, but there is no help for it, because the lender will take advantage of the necessity of the borrower, and secure a good bargain at all events. In answer, I would say, if you would have the people honest, if you would restrain the grasping, if you would prevent the miser grinding the faces of the poor, *make your laws right*—base them on principles of justice and equality. Laws have much to do with the consciences of men. A people never will be better than their laws, not often so good. The fact that some men will steal, murder, and do a thousand other wicked things, is no reason why we should by law tolerate such wrong doings. The suggestion of Mr. P., to secure a "full disclosure of property," it seems to me, is needless. The punishments for a dishonest invoice, as the law now is, provided the assessors do their duty, are the pains and penalties of perjury. I have no objection to a homestead bill, but I should much prefer some action to encourage young men to have a homestead.

R. M.

Westboro', Jan. 28, 1860.

THE OTTER OR CREEPER SHEEP.—Our excellent brother HOLMES, of the *Maine Farmer*, says some account of this breed of sheep may be found in "Dwight's Travels." It appears that they originated in the town of Mendon, Mass. He adds, "We used to have them in Maine, but have not seen any for some years, probably they have be-

come extinct. They were a good bodied, medium sized sheep, and very quiet. They were unable to run over stone walls or leap fences." Perhaps some person in Mendon, or its neighborhood, can give us some interesting facts in relation to these sheep.

#### WETHERSFIELD SEED SOWER.



Among the many implements which have been invented within a few years to lighten the labors and expedite the operations of farming, those are particularly important which come in use at the busy seasons of seed-time and harvest. While many of the heavier labors of the farm—the stump-pulling, the rock-lifting, the ditching, &c., can remain to a more convenient season, it is often essential to the growth of the plant or to the value of the crop, that the seed should be planted at just such a time, or the harvest gathered in under just the right circumstances. It is claimed that the little implement above figured will secure the proper and speedy planting of the seed. Operating as fast as a man can walk, it deposits at regular intervals, the proper amount of seed, covers and gently presses the earth around it, securing all the conditions in planting necessary to a quick and healthy germination. No other preparation is necessary for it than to see that the soil is properly pulverized and levelled, and that the ordinary conditions of seeding, which no judicious seedsmen will neglect, are observed.

It sows garden seeds of all kinds, adapting itself readily to all sizes, from the mustard seed to the kernel of corn, and all shapes between the round, plump pea, and the flat, scaly parsnip.

It comes from a town better known than perhaps any other in New England, as a seed-raising town, and having the endorsement of many of the farmers and seed-growers of that town, we can safely recommend it to the careful notice of our readers. It is advertised in our columns this week.

## LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The sixth meeting of the present session of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening, Dr. GEORGE B. LORING, of Salem, in the Chair. The subject for discussion was "*Agricultural Education*," it having been continued from the previous meeting.

On taking the chair, Dr. Loring said he had understood that the subject for discussion would be "The Feeding of Stock," and he was intending to address the meeting on this, having expressed his views on education before, but he thought the two subjects might well be considered together, as they were so closely allied. Agriculture, said he, lies at the foundation of all education, and the subject might profitably be discussed throughout the entire series of meetings, and then not be finished. Agriculture, without education, must be to a certain extent a failure; there have been exceptions, both in Europe, and in our own State even, but these were exceptions, and did not affect the rule.

The speaker said his chief object in appearing before the Board of Agriculture, as stated at the previous meeting, was to urge the publication of an agricultural manual for our schools, so that the young might take an interest in it, and profit by it. Chemistry, said he, is a pleasant and interesting study, so is botany, and more than this, to make agriculturists of our children, we must impress on their minds the importance of it. Now a farmer's child is taught to consider that every profession is higher than its father's, and until we show the falsity of this, we cannot hope to see agriculture prosper.

I want to see topics discussed in our schools that will so interest children that they will go home and talk them over at the fireside; I want them taught what sheep are, what kind are profitable to keep, what the cost of keeping is, what their wool will sell for, how much they eat, and what is best to feed them on; what every tree is, what stock is, what manures are, and the various kinds for the various crops, &c., and by imparting such knowledge as this, boys will go home from school knowing that something good can be done on our farms. Then will be time to establish county schools and agricultural colleges, but the education should be begun in our common schools, at once.

The speaker then said there was another source of instruction he would mention, and which was of the utmost importance—the introduction of good agricultural books into the farmer's family. What is more interesting in literature, he asked,

than good agricultural books? No Congressional Documents go through the country so fast or so far, or are half so much sought after, as the "Patent Office Reports on Agriculture," poor as those are, and this shows the great amount of interest that is taken in the profession.

Dr. Loring said that he considered agriculture as an art, rather than a science, and asked, in this connection, whether there was any man who could tell which was the best method of feeding stock? He thought there was not,—as it had not yet been discovered, so far as he had heard. He had tried it for a number of years and had not found it out. Cattle, said he, eat what is placed before them—what they can get, but he had never heard of the man that had solved the problem as to what was the best feed. Cato said the best branch of agriculture was to feed stock well, and the next best branch to feed stock moderately. He, Dr. Loring, supposed that the best feed for cattle was good English hay; you may, said he, steam corn stalks and fix up some kind of palatable feed, but it was an open question as to what was the best feed. There is no rule, and, when the question was discussed, he would give the maxim of Cato as the ground to commence upon.

Rev. Mr. STEBBINS, of Woburn, being called on, said that his remarks at the previous meeting had been of a rambling character, and he was glad to have this privilege of speaking more connectedly on the question. Agricultural education, said he, is a subject of the greatest importance, and lies at the bottom of stock feeding. The sciences which lay at the bottom of agricultural education are chemistry, botany and geology or mineralogy. The relations of vegetation to the soil and of the soil to vegetation, he said, are necessary to be taught in our schools. A child should commence by learning the names of plants around him, their structure, the atmosphere best suited to them; the names of insects, and whether they are destructive to vegetation or otherwise, the best methods to destroy the destructive ones; then the names and habits of birds, and what kinds are injurious to the crops, and those which should be allured to remain on the farm. All these things can be taught, said he, while the children are sleeping or trying to sleep in the school, and would be far better and more useful studies in after life than many other things that are now taught, and might be commenced with the youngest scholars.

Dr. Stebbins then alluded to many subjects on which much time is wasted in teaching scholars, and argued that the time devoted to these would be more than was necessary in learning agricultural branches. He said that the brain of the child in our public schools is now overtasked, and our children are so fully engaged in studies they have

so little interest in, that it tends to make them idiotic.

He was opposed to establishing new schools expressly to teach agricultural education, as he considered it would be folly, but he would begin in our common schools. He said he had told what was done and could be done in our lower schools, but he would consider the higher ones. Here pupils were found studying algebra and geometry, things that in ninety-nine cases in a hundred would be of no use to them, although much time was spent in their study; it would be far better to teach the boy how to raise and feed stock. He would not ignore algebra and kindred studies, but he would give the boy a term or two of these, and then teach him what would be useful to him as a farmer or mechanic.

It had been asked, where shall we get teachers? He would answer, do the best we can, and he felt sure that when the want was expressed it would breed the supply. Should this want be manifest, those who are preparing themselves for teaching would attend to this, and in a short time we should have all applying for situations thoroughly conversant and able to go creditably through an agricultural examination.

The difficulty, said he, is not that we have not educational machinery, educational power or educational interest, but that we keep along in the old scholastic method of teaching. He thought that if our Board of Education required agricultural education to be taught in our four Normal schools, the want of teachers would be quickly supplied. He had no faith in any great establishment for teaching agriculture at present, nor had he at any time, as he thought the present educational facilities of the State were ample, if they were properly directed.

In closing, he again urged the importance of this education, as the theoretical knowledge thus obtained by a boy, with his father's practical knowledge, would unite the two more every day, and thus make the profession a pleasure.

Mr. WETHERELL, of Boston, said he thought the arguments used in support of agricultural education had been erroneous. If, as had been said, no one knows how to feed stock well, how are we to teach our children? There is so much difference of opinion in regard to chemical analysis that the most celebrated professors do not agree, thus making it impossible to teach. In educating the mind of a child we must discipline it, and not lumber it with facts. He spoke of the indisposition there was in the mind of both teachers and pupils to study agricultural works, and as an illustration of this, instanced the work of Prof. Johnston, entitled "Agricultural Catechism," which had been generally introduced into the schools of New York State some time since, and was now scarcely

known. Speaking of Chemistry in its relation to successful agriculture, the speaker said he did not see the necessity of a thorough knowledge of this to raise large crops, as the Chinese, who know nothing of this science, produced larger crops on a given area than any other people in the world. He thought that if a child was taught a good common education, he would learn farming fast enough without being specially taught it in school.

Rev. Mr. STEBBINS remarked that he would have all that would be useful in after life taught to children, and this teaching commenced when they were young. In our higher schools, said he, the age of the pupils ranged from 16 to 20, and he thought young persons of this age were fully able to understand and analyze the soil; indeed, he thought that in the common schools the majority of the scholars were of an age and capacity to take an interest in learning this study.

Mr. D. W. LOTROP, of West Medford, said he had attended the meetings of the Society and listened to the discussions on the different subjects, and he had come to the conclusion that farmers seemed to think that all they wanted was capital or manure, and apathy was in a great measure the result. This question of teaching agriculture in our schools is a new thing, and the first thing to be established is, that we need this science of agricultural chemistry before we ask to have it introduced as a study. In his opinion, we should not introduce a system of any one class, thus forestalling the minds of our youth in selecting a trade or profession. He said he thought there was not more than one boy in forty, in the schools of our State, who designed becoming a farmer, and this was a strong argument against introducing this new feature. An agricultural college, in his opinion, was not needed here, and an inquiry into the aims of those in England he considered would settle this matter. In the English agricultural colleges it was sought to give the children such an education as should fit them for farm laborers, as the pupils were composed of the children of this class, and by this means make them more valuable on a farm, but still keep them from rising, and he quoted from Coleman's work, in proof of his deduction. It must be borne in mind that, here, a man having three or four sons has only one farm, and consequently has to leave that farm to one, thus cutting off the others, who have to get a living in some other way. Now, if it was, as had been stated, a fact, that these farmers' sons helped to infuse life into the learned professions, and to make successful merchants and statesmen, why check this immigration, as the prosperity of our country and State as much depended on the success of our cities as our farms.

Hon. JOSEPH WHITE, of Lowell, said the question in his mind was, not whether men shall be

educated as agriculturists, but whether agriculture shall be taught in our school. He agreed fully with Rev. Mr. Stebbins, that the man or woman should be educated to the business of life. A man is not to be a corn-feeder or stock-raiser alone, but his education should have a wider and broader range than agriculture. The State opens her munificent hand to give all a general education, and the only science that should be taught, ought to be the science of manhood and womanhood. He believed no man could be an agriculturist, unless he was educated, and he thought the better educated a man was, the better farmer he would make; indeed, he thought a collegiate education would make better farmers.

Mr. ASA SHELDON, of Wilmington, being called on, said he could best judge of the importance of education from the want of it. He thought mothers should take more interest in this matter, and should teach their children their first lessons in agriculture. If mothers would only teach their boys and girls how honorable agriculture is, there would more of them stay at home, and there would be fewer boys running round hunting up clerks' situations in cities. He spoke of the rare occurrence of a farmer getting committed to our prisons, and closed by complimenting the ladies on their presence at the meetings of the Society.

Mr. GARDNER, of Swansea, said he was not inclined favorably to the introduction of agricultural books in our common schools, as he thought there was enough taught there now, the children not having time to devote to it.

The time for adjournment having arrived, Mr. Gardner was cut short in his remarks. It was announced that the subject for discussion at the next meeting, would be "*Stock Feeding*," and that Dr. GEORGE B. LORING, of Salem, would preside, on which occasion ladies were particularly invited to attend. The meeting then adjourned.

**UNFAVORABLE RESULTS.**—People generally are disposed to say as little as possible of unprofitable bargains and of unfavorable experiments. Mr. J. H. Stanwood, of Colebrook, Ct., publishes in the *Homestead* the results of two experiments of this kind which he has recently tried in feeding roots and cotton-seed meal to a milch cow. Up to Dec. 25, the cow had been fed solely on good upland hay, and gave 141 pounds of milk, on the hay-feed, during the week preceding the trial of roots. For one week, in addition to hay, she ate half a bushel of turnips and mangolds each day, and yielded 140 lbs. of milk, being a falling off of one pound. The next week he fed two quarts per day of cotton-seed meal, at a cost of forty-three cents, and the cow gave 149½ lbs. of milk, being a gain of about four quarts, worth about nine cents, at the prices

obtained by the experimenter at his door; "leaving a balance," he says, "of thirty-four cents in favor of letting the meal alone."

On these experiments of a single week, Mr. Stanwood rejects both roots and cotton-seed meal. Such brief trials are of but little value to the experienced feeder, and we notice them rather by way of caution than commendation.

*For the New England Farmer.*

#### "SICK CATTLE."

When, Messrs. Editors, in a most laudable desire to impart benefit to the many, a contributor to your columns offers knowledge that he deems beneficial, there is seemingly a lack of courtesy and decorum in venturing to attempt to prove his adopted views as unprofitable. Yet sure, no one ought to be offended, if others' opinions vary from those another has preconceived, provided the variation be kindly expressed. I make these remarks, because I so largely differ from your correspondent at Brimfield, in his suggested cure for "Sick Cattle," as given in your recent issue. The communication advanced seems to have been offered from reading the loss sustained by Winthrop W. Chenery, Esq., through a disease developing amid his cows, said to be "Pneumonia," or "Inflammation of the Lungs." Of this I know nothing. Neither pretend I to suggest a cure, in any case similar. What I would deal with, is the remedy your correspondent proposes, "in all kinds of stoppage or bloat from any cause," in cattle. And as the subject of chemistry, by a sort of necessity, has been the peculiar study of my life, I will endeavor to state chemically why I deem his remedy most hazardous.

Your correspondent recommends vinegar and chalk administered quickly, for, as he says, "a bottle is not strong enough to hold it." Now, what are the chemical properties of the agents named? "Vinegar," or "acetic acid," it is well known, possesses strong antiseptic powers, and its action on the living body is gently stimulant, but astringent. "Chalk, or carbonate of lime," is an anti-acid. In pharmacy it is employed for the preparation of "carbonic acid gas." Mixed with vinegar, this "gas is largely evolved, leaving as a residuum, a most nauseating salt, offensive in the extreme, and according to the best chemical writers, (unlike most salts) holding no purgative quality, whatever." Both articles being thrown into a living stomach, all that can be obtained from them will be an immediate, rapidly effervescent mixture, disgusting beyond expression, forming an after salt, wholly absent from all purgative qualities, and at once distending the stomach and all the vessels approximate, with a suffusion of "carbonic acid gas," injurious in the extreme. If pressing for a passage through the intestines be the sought object, the proposed remedy is wholly worthless, for the distension attendant on the pressure of such a volume of gas must of consequence bar all doors, rather than soothingly open them. Escape must be had at once for the introduction of this violent agent, else death will ensue. For, if "no bottle be strong enough to hold the mixture," what can be expected from a stomach? And if the case were "pneumonia," (as

with the cows of Mr. Chenery,) a pistol bullet would not be more inevitably prompt, in deadly efficacy, than the blending and administering of "chalk and vinegar." An acid and anti-acid combined must by acknowledged chemical law evolve "carbonic acid gas," and this, in large quantities, if received into a stomach, is deleterious in the extreme. And here I would state a case, that became cognizant to me, as occurring in this place, some years since, of a young lady recovering from a typhoid fever, and while in a most feeble condition, having swallowed from the hand of her physician what he denominated a "foaming draught", (being a full mixture of sub carbonate soda and tartaric acid,) expired before aid could be administered, the carbonic acid gas evolved at once producing strangulation. Availing myself of the very appropriate remarks, Messrs. Editors, you appended to your correspondent's communication, I offer these few suggestions, earnestly cautioning all persons to avoid a proposed remedy so utterly opposed to all well attested chemical laws, and, may I say, so repugnant to all judicious treatment. The presence of any great quantities of gaseous formation in the stomach, we all know, is ever attended with the most distressing consequences.

To establish my doctrine, I simply would cite a story told me by a present distinguished physician of Boston, relative to the decease of an ancestor of his, "whose death, as recorded on the tomb stone, was occasioned by an over-indulgence on a supper of beans, which produced a windy colic, and wafted his soul to heaven." Urgently, then, I advise all to shun the admixture of "chalk and vinegar," or any other agent disposed to an undue evolution of "carbonic acid gas" in the stomach, even if its result be a salt of highly purgative character, which that from "chalk and vinegar" surely is not.

OAK HILL.

Feb. 15, 1880.

#### STEAM CULTIVATION.

This is the great topic at present with English farmers. A paper "On the Forces used in Agriculture," recently read before the "Society of Arts," by Mr. J. C. Morton, is exciting much discussion. The money value of power as exerted by steam, by horse, and by man, is stated by Mr. Morton to be as follows: steam can meet a certain continuous force, at a cost of six cents per hour; the same, if supplied by horses, would cost 20 cts., and if supplied by manual labor, no less than \$3.60 per hour. In the remarks which followed we are glad to perceive that the importance of improving the directing power—the English laborer—both as regards his physical and mental forces, was urged by every speaker. Prof. Wilson of the University of Edinburgh, remarked, that

"To the laboring man steam has been, and always will be, a friend; it relieves him from the hardest and worst portion of his duties, and raises the value of his higher (mental) power—skilled labor. The industrial history of the country teems with evidence of the benefits conferred by steam machinery on the working classes, not less in increased employment than in increased wages

for it; and few departments of industry offer greater opportunities for its development, than in that connected with the productive powers of the soil. But the machine, to be complete, needs the directing skill of the man. He is essentially one of its working parts; and as in mechanics it is an axiom that the strength of the whole is only equal to its weakest part, it is clear that the efficiency of the machinery we use materially depends upon the knowledge and skill with which it is directed. I cannot refrain from expressing a very strong opinion that our farmers will find it to be greatly to their interests in a pecuniary point of view, to say nothing of higher motives, to endeavor at once to improve the condition, both moral and physical, of their laborers, and prepare them for the new duties they will be expected to perform."

*For the New England Farmer.*

#### LONG ISLAND LANDS.

GENTLEMEN:—The advertisement and notice in your paper of the Lands on Long Island for sale by me have elicited numerous inquiries, and knowing the interest you feel in the subject of agriculture generally, I venture to ask your permission to answer a few of the queries through your columns. One of the many correspondents asks what we propose to use for cellar walls in the absence of stone upon the land. I answer, we use bricks, which are made in the vicinity, and can be had at from \$4 to \$6 per thousand. Also, stone, which can be easily obtained at small cost.

Some persons have used a "Gravel Wall," from the material taken from the cellar a few feet below the surface, with a small quantity of lime and cement. I visited a gentleman a few days since, who has lately erected a fine house upon a farm of 200 acres, originally a part of this tract advertised, and he has one of the finest cellars I ever saw, made in this way, and he informed me it cost much less than either brick or stone. I am asked about water. There are several streams in the immediate vicinity of this tract, and, as I say in the advertisement, we can procure the best water in the world, by wells 20 to 40 feet deep. Also, as to cost of fencing; we do not propose to fence at present, except around the garden and buildings. I believe it is generally conceded that it is far better to keep cattle yarded, soil-feeding, and save all the manure; this is now the practice here. But chestnut and locust timber is abundant in the immediate vicinity, and fencing material can be had at very reasonable prices.

Another writer asks, is there any "Fever and Ague?" Answer; none. Also, can produce be marketed at remunerative prices? Yes. Every thing that grows upon the Island can be sold at once for cash, at the highest market price that the cities of New York and Brooklyn afford, and they are the best in this country, if not in the world. Everything, even to a bundle of rye straw, can be sold every day for cash, and this is the great advantage that Long Island farmers and gardeners have over other parts of the State. The Long Island Railroad Company transport freight at low prices, and they propose to continue, (as they have done,) running a nightly train to deliver by a barge of their own in connection with their Railroad, produce of all kinds at the principal market

in New York city, (Washington,) early every morning, thus enabling farmers at this distance to compete successfully with those near the city, and using their own teams, as the cost of transportation is less by railroad.

The produce is sent to reliable commission merchants, who dispose of it and make returns in many cases without seeing the owners at all. One other, and I am done. I am asked by another if, as I say in my communication, I never saw these lands until last September, how I can judge of its productiveness? I answer, by the crops I saw upon the ground, recently harvested, by the stubble, by the newly-made gardens and fruit trees therein; some in bearing, and all of the most thrifty growth; by the united testimony of all who have settled upon these lands within the past five years, and by the great similarity, (I may say identity,) in geological structure and natural productions of the soil of these new lands with those of Flatbush, Flatland, Jamaica and other places on Long Island with which I have been well acquainted for several years, and where the farmers make their farms pay a good interest upon a valuation of from \$500 to \$1000 per acre, prices at which they are held.

One word in regard to the cost of clearing and plowing. A gentleman from Canada has just purchased a tract in sight of these lands advertised, and has contracted for clearing, burning over, and plowing, turning over handsomely 30 acres by the first of May next at \$12 an acre. He paid \$25 an acre cash for his land. I think the price for clearing and plowing too high, and believe I can do the same work with my own men and teams at much less price.

I am asked about grist mills, saw mills, schools and churches, all of which are within two or three miles of this land. Indeed, two new school-houses have been erected recently in new districts, one within 40 rods, this land being in the district.

New York, Feb. 8, 1860. AARON STONE.

*For the New England Farmer.*

#### AGRICULTURAL EDUCATION.

MR. EDITOR:—One of my neighbors, who is apt to be inquisitive of other men's business, asked me this morning, "What do they mean by proposing this as a topic for discussion by the Legislative farmers, at their proposed meeting on next Monday evening?" I told him I supposed they meant to point out the best mode of educating boys to be good farmers. "Fie upon your education of boys to be farmers," said he; "put them at work under the personal supervision of a good farmer, and let them work from the age of sixteen to twenty years, and do all the kinds of work that he has to do, and there is no doubt they will be sufficiently learned to manage a farm, as soon as they are fortunate enough to get one."

I am inclined to think this man's ideas were pretty near the mark, provided these boys have been properly taught at school before they arrive at the age of sixteen. I say properly taught—by this I mean, they should have learned all the branches usually taught in our schools, together with such principles of chemistry and mechanics, as come into daily use on a farm.

First, I would have a boy so expert in the use

of the tools of the shop that he could make or mend all the tools that he may have occasion to use on the farm. This they could learn at any time after they are twelve years of age. By knowing this, many steps and much money will be saved. There are always days, rainy or otherwise, when odd jobs of this kind can be attended to. The farmer has to learn early, that "a penny saved is equal to two pence earned," and when he does a thing himself, he will have no occasion to complain that it is not well done. I know they tell about founding agricultural schools, with learned professors to lecture on each of the sciences. But what does it all amount to? I want no better professor than was my old father, who had sinewy arms and a powerful body, and who acquired his knowledge by long-trying experiments.

Feb. 11, 1860.

ESSEX.

#### EFFECTS OF WINE UPON THE HABITS OF A PEOPLE.

We transfer to our columns with pleasure the fair and kindly expressed criticisms by the editors of the *Country Gentleman*, upon remarks of ours made at a recent meeting of the Legislative Agricultural Society at the State House. We will merely add, that the friend who made the statements to us in regard to intoxication and the use of wine in France, formed his opinions, not merely upon passing through that country, but upon the observations extended through a period of eighteen months, and a period of twelve months in Italy. He is an intelligent, candid man, has travelled extensively, but has no Munchausen propensities whatever. We are informed that the writer of a recent history of Hungary—that rich and beautiful but ill-fated land—states that in travelling its entire length and breadth, sleeping nights at the houses of the common people, and eating at their tables, as well as mingling with them in villages and cities, he rarely saw an intoxicated person in the country! But cheap, light wine was the common drink, at their meals, and at other times. All classes used it, rich and poor, men, women and children. How can these reports, so widely different, be accounted for? Perhaps at a future time we may venture some solution of them.

SIMON BROWN, editor of the *New England Farmer*, in speaking of the importance of the culture of the grape, urged the manufacture of wine as a means of promoting temperance and preventing drunkenness. A friend, he said, had travelled in France, and had seen but few intoxicated, and that results were similar elsewhere. We have a high respect for the opinions of our friend of the *New England Farmer*, but we think that here he has been induced to favor an error. It is true he is not alone in his opinion; several other distinguished cultivators have adopted the same; and it may therefore be proper to state briefly a few facts relative to the subject. Public statistics are more reliable than private opinion, or partial observation. A careful examination of many jails



and prisoners has shown that about nine-tenths of the crime is caused by intemperance. Yet it has been found a few years ago that crime was increasing in France *six times* more rapidly than the population. A distinguished banker in Paris has given the returns of the quantity consumed by that city. The amount was 130 bottles of wine and 6 of ardent spirits, consumed on an average by each inhabitant, within the walls. Outside the walls, there was no excise, and the amount was much larger. The amount consumed in France was 1,053,797,854 gallons of strong drink of all kinds—over a thousand million gallons—an average to each person of forty-two and a half gallons a year—equal to four and a half gallons of pure alcohol to each. In the United States, at the same time, there was only a gallon and an eighth of alcohol consumed by each person. Some travellers pass rapidly through France, Italy, and other countries, visit the cities and splendid streets, see nothing behind the scenes, and then return home and report “no drunkenness in wine countries.” But others who have examined more thoroughly have told a different story. J. Fennimore Cooper said some years ago, “A residence of six months in Paris changed my views entirely. I have taken unbelievers with me into the streets, and have never failed to convince them of their mistake in the course of an hour. On one occasion we passed *thirteen* drunken men in an hour.” An eminent French general stated that “the ration to each soldier was a bottle of wine a day—the use of that bottle only stimulated the appetite for more, and their small pay was usually squandered to purchase it—that want and insubordination in the army could be traced to wine; and most of the crime and poverty, especially in the districts, to the same cause.” When Louis Philippe was king he expressed his conviction to a distinguished American “that total abstinence was the only true temperance, and that the drunkenness of France was on wine.” His son made a similar remark, and added that “it would be a blessing to France could all the grapevines be destroyed, except so far as they furnish food.”

*For the New England Farmer.*

#### LAYING NEW SHINGLES OVER OLD ONES.

Some time within two years, I think, inquiry was made through the *Farmer* relative to this subject. I have searched for it, but do not readily find it, so I must depend upon memory. At the time the inquiry was made, I thought I would reply, but hoping that some other person would do it, I neglected it. I have often thought of it since, and have looked carefully for some further remarks, but having seen none, and thinking it a matter of too much importance to pass longer unnoticed, I will give the result of my observation.

The practice of laying new shingles over old ones has been in vogue here a number of years, is constantly gaining favor, and has become quite general. The objections to the plan are, that it takes longer nails, and is, consequently, a little more expensive: and that any water which may leak through the new covering will be retained by the old longer than by the boards, if the old shingles were removed; hence the roof will be lia-

ble to rot sooner. Practically, however, these objections have but little weight. Roofs thus covered are found to be more nearly impervious to water than single covered ones, and they are a much better protection against snow, very seldom admitting any, consequently they are warmer. I have had several roofs shingled in this manner within a few years, and I like the plan much. The general favor in which the practice is held, is pretty good evidence of its utility.

I intend to collect some facts relative to this subject, and if I obtain any of general interest, I will place them before the readers of the *Farmer*. I hope others will also give their experience in the matter.

L. VARNEY.

*Bloomfield, C. W., 2d mo., 1860.*

#### EXTRACTS AND REPLIES.

##### CRANBERRY MEADOW—HUNGARIAN GRASS SEED—OIL MEAL.

I have a piece of land that is quite wet, cold and sour; it bears grass only fit for bedding. I want to know, if the land is suitable, how to proceed with it, in order to fit it for cranberries; how to set the plants, and at what time to set them? (a.)

Can I get the Hungarian grass seed in your city? If so, where and at what price, what time to sow and cut it, and if a middling quality of soil will produce a fair crop? (b.)

Also, the cost of linsced oil meal per hundred, and if given to cows, will it cause a greater flow of milk? (c.)

G. A. GIBSON.

*Westfield, Mass., Feb., 1860.*

REMARKS.—(a.) If the land is covered with bushes and coarse grass, flow it two or three years until they are killed—then set the plants twelve inches apart, in October, and flow it through the winter. If you cannot wait for this process, cut the bushes and burn them, grub off the hassocks, and make the meadow as level as you can. If you cannot flow the land, set the plants as early in the spring as you can. We cannot tell you whether the land is suitable or not, without seeing it; but almost any moist land will produce cranberries, if bushes and grass are kept away from them.

(b.) Hungarian grass seed is sold by Nourse & Co., 34 Merchants' Row, for about \$4 per bushel. Sow in April, and cut for fodder when in bloom, or for seed when the seed is ripe.

(c.) Oil meal is selling at about \$2 per hundred pounds. It will increase the flow of milk when fed to cows.

#### THE ONION DESTROYER.

Nothing has been heard from the son of the Green Mountains about his remedy for the onion destroyer, since his reduced proposal to sell out, for the moderate sum of sixty thousand dollars. An investment that, abating all contingencies, if judiciously placed, would yield a constant income of three thousand dollars a year, during life, and leave a permanent residuum for the little ones. What a pity that such enterprise should not be adequately rewarded? If I should guess (as all Yankees are privileged to do,) he did not find the

boys on the borders of the salt water so green as he hoped they might be. What! decline to pay this moderate sum for a discovery that will replace it in full every year! Beyond question, the onion crop in Essex county alone, amounts to many hundred thousand dollars annually. If one farmer, on a small farm of fifty acres, raises 5000 bushels annually, how much may be expected from 500 such farmers?

Feb. 22, 1860.

#### TOP-DRESSING GRASS LANDS.

When is the proper time to top-dress grass lands? Or, is it always necessary to plow before dressing?

Why do many good farmers allow their cattle to remain in the yard, or other out-of-door places in cold weather? Is it more healthy or profitable in any way than keeping them in the barn?

Mendon, Vt., 1860.

W. C. WALKER.

REMARKS.—A good time to top-dress grass lands is immediately after the hay crop is taken off; the fine manure settles down among the stubble where the dews moisten it, and it soon finds its way to the roots of the grass, reviving and starting them into vigorous action, instead of drying away and dying, as they too often do. Late in the autumn, just before snow falls is also a good time; so is the last of March, while the ground is frozen, and just in season to catch the spring rains that will wash their fertilizing properties into the soil.

We cannot give you any other reason why good farmers allow their cattle to remain out of doors in cold weather, except it is they think it promotes their health. In moderately cold weather, cattle may enjoy the liberty of the yard for a portion of the day, and it seems to us that such liberty must be beneficial to them. Much, however, will depend upon the circumstances under which they are placed. If they are fed in the yard, and all sorts of stock are out together, jamming and hooking each other about, it is doubtful whether they will derive any advantage from this use of the yard.

#### COLTS ON A HARD FLOOR.

One of your correspondents has stated that colts should stand on a hard plank floor in order to toughen them for a hard road. It looks to me like putting hard thick shoes on an infant's foot to raise corns that will trouble him for life. Let colts stand on a soft, moist floor.

New London, N. H., 1860.

#### REMEDY FOR WORMS IN HORSES.

Feed the horse for two or three days in succession on good, bright corn stalks, green or dry, and in the meantime give him nothing else to eat.

#### TO CURE POISON FROM IVY.

Rub the part poisoned with sweet oil. A small portion rubbed on the skin before going among the ivy will prevent taking poison.

#### TO KILL VERMIN IN CATTLE.

I saw in your last monthly an inquiry—"How to kill Lice on Cattle?" The remedy I use, and I find it always produces the desired effect, is to steep tobacco in urine, and wash the animal thoroughly with it.

L. B.

Meriden, Feb., 1860.

REMARKS.—All such washes must be used with great care. Tobacco is a dangerous article to use. Cattle are liable to take cold after such washings. A little sweet lard melted and rubbed thoroughly over the skin, if persevered in, will usually answer all purposes. Any other pure oil may do as well. In confirmation, read the following as a sure method of

#### DESTROYING VERMIN ON COLTS.

Take flax seed (linseed) oil, and rub the harboring places thoroughly to the skin, and the vermin will swell up, die and drop off. It is very safe and sure.

E. H. D.

Boston, Feb. 10, 1860.

For the New England Farmer.

#### THINNING OUT PINES.

MR. BROWN:—I noticed in your paper of last week an article in reply to an inquiry about thinning and trimming pines. I fully agree with your correspondent in regard to trimming off the dry limbs and letting the green ones remain. I think it is well to let nature have its course. But I am a Yankee, and consequently I go in for improvement. Not for improving nature, but for assisting it, and improving the growth of the timber lot; I believe that nature can be assisted in growing timber as well as in growing corn. Pines, in order to flourish, must have room according to their size. Young white pines that come up on an average two and a half feet apart, may remain so until they are ten or twelve feet in height; then, in my opinion, they should be thinned out gradually, as they increase in size and height, until they stand full twenty feet apart; I think that some fifty years hence, one tree standing on a base of four hundred square feet, with a diameter of two feet, and a spindle seventy or eighty feet towards the zenith, would be better than sixteen trees on the same base with a diameter of six inches on an average, which I think would not be far from the result, if all were allowed to grow.

Amherst, N. H., Feb. 1, 1860.

D. N.

POSSIBLE DISTANCE OF DRAINS.—In the *Canadian Agriculturist*, for February, we find an earnest word of caution from a correspondent, who says that a year or two since he wrote an article recommending drains to be only eight yards apart. Further experience and observation has satisfied him that in many cases this distance may be greatly increased. He is now satisfied that he had thrown hundreds of pounds away, and is sure others have thousands, and he wishes to prevent this in future. He cites a case stated by Mr. Mechi, in which a field of twenty acres was drained by a single drain, four feet six inches deep.



### DESIGN FOR A COMPLETE FARM-HOUSE.

We present the reader, to day, with another of the natural, (and truthful, because natural,) designs of our accomplished artist, Mr. G. E. HARNEY. What we mean by *natural*, is, that the artist so mingles the work of his own hands with the works of nature, making the blending so graceful and harmonious, that a true taste is never offended by its contemplation. Indeed, his pictures look as though they *grew*, rather than that they were made!

Mr. HARNEY will be kind enough now to step forward and explain his own beautiful design in his own language.

"When we speak of a *complete* farm-house, our country friends fancy to themselves, a dwelling that shall contain every convenience necessary for the carrying on of the household portion of the farm labor; at least, such is the idea we have of it, and in the composition of the present design, we have endeavored to supply those conveniences.

There is nothing at all showy about the house, either in design or plan; it is a plain, substantial farm-house, nearly square, with a large L on one side—our aim having been to insure conven-

ience even at the expense of ornament—though, we think, after the house has become two or three years old, and brightly flowering vines begin to cover its sides, and trees to throw their shadows upon it, that it will have a cosy, comfortable, home-like appearance, quite in contrast with the *shingle palaces* of late so fashionable among us.

Our plan comprises the following accommodation: No. 1, hall 7 feet 8 inches by 19 feet, opening into No. 2, parlor, 15 feet by 16; No. 5, bed-room, 15 feet square; No. 3, living-room, also 15 by 16 feet, opening into a back entry; No. 13, and across it into the kitchen, No. 4, 15 feet by 20; this kitchen contains two large closets and connects with a pantry, No. 7, which measures 7 feet by 10, and is fitted up with a sink and shelves. The next room *en suite* is the back kitchen and wash-rooms; it contains two closets, a large oven and boiler, and measures 16 feet by 12; it opens into the back entry, through which we pass to the wood-room, No. 8, 14 feet by 15; No. 10, carriage shed, and No. 9, work shop. The back entry is 4 feet wide, and contains stairs to the chambers and cellar. On the front, doors open into the dairy, No. 11, 7 feet by 14; the store-room, No. 12, 7 feet by 13, and upon the sheltered porch, No. 14.

The second floor contains eight chambers, besides bathing-room, dressing-rooms and closets. The attics may be left unfinished.

**Construction**—This house may be built of wood, and covered in the common manner with clap-boards.

The roof of the main house projects 2½ feet, and that of the L, 1½ feet; the cornices are supported in brackets 3 inches thick. The windows

that he was raising in their immediate neighborhood. We held a family council on the subject, and were unanimous in opinion that the unusual cold weather had the same effect on the plants that the keeping over one winter does, and as last season was an uncommonly cold one, frost in every month, it is not impossible, but altogether probable, that the effect of cold on the young plants produced the singular result.



and doors, inside and outside have plain architraves, 5 inches wide.

Cost, in New England, about \$3,500."

*For the New England Farmer.*

#### THE EFFECT OF FROST ON PLANTS.

MR. EDITOR:—In the December number of the *Monthly Farmer*, 1859, I noticed an article entitled "Facts for the Scientific," and signed "P. .," Vermont, in which the writer relates a singular circumstance of a neighbor having planted a field with French turnip seeds, and the young plants all going to seed the same year. I once had a similar phenomenon happen to a plot of young beets, and presuming that the result may be traceable to the same cause in both instances, I will relate my experience. I do not remember the exact date, but about 20 years ago, I had my ground prepared, and beets planted as soon as the season would permit. The seeds came up finely, and the plants had reached the size of four and six leaves, when the weather became very cold, and the earth froze to the depth of two and three inches. Fearing that my young beets would not make any farther progress, I had another plot of ground prepared immediately and planted with seeds from the same lot with the first, but the plants in the first planted bed lived, and after a few days recommenced growing. I had them thinned and cultivated, but in two or three weeks discovered that they were all going to seed. Not a root was produced larger than a person's finger, and of a tough, woody substance, while the later planting produced roots of the usual good quality. The stalks of the first planting reached the height of two and a half feet, when my husband ordered them to be exterminated, fearing that the blossoms on the precocious plants might injure the crop of beet seed,

I have known good crops of ruta бага turnips raised from the same lot of seed for eight or ten years in succession. The seeds were kept in a cloth bag in a chamber not wholly excluded from light and air, and the products of any seeds will, undoubtedly, be perfect in their kind, so long as their vitality is sufficient for germination. If there are any seeds left of the lot from which that field was sown last season, I hope that the experiment of planting them will be tried again, and the result given to the public.

While on the subject of beet raising I will say to the lovers of young beet-tops for greens, that it is a good way to clear the cellar of the old beets and set them out early in the spring for sprouts, as they can have them earlier, and in greater profusion, and save much labor and garden room; and if cooked while tender, they are equally good with the young plants. MRS. N. DARLING.

*New Haven, Conn., Jan. 28, 1860.*

**CROPS OF OLDEN TIME.**—In one of his letters written in England, the editor of the *Country Gentleman* states a fact illustrative both of the progress of English agriculture and of the length of time which some of the English records cover. In the year 1387, nearly five hundred years ago, on the Manor farm of Hawstead, in Suffolk county, 66 acres of wheat produced 69 quarters of grain; and 26 acres of barley, 52 quarters and 2 bushels—that is, wheat at the rate of less than 8½ bushels per acre, and the barley at the rate of about 16 bushels. The present average production of wheat, on the other hand, is calculated at about 28 bushels per acre.

**CUTTING BUTTER IN COLD WEATHER.**—To cut a slice of butter from a large roll in cold weather—first dip the knife in hot water, and all trouble of breaking the butter will be avoided.

**LEGISLATIVE AGRICULTURAL MEETING.**

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The seventh meeting of the series of this society was held in the Representatives' Hall at the State House on Monday evening, Dr. GEORGE B. LORING, of Salem, in the chair. There was a large attendance, and much interest was manifested in the proceedings. The question for discussion was "*Stock Feeding.*"

On taking the chair, Dr. Loring said that the subject was one of the most important that can occupy the attention of farmers. It involves a system of cultivation, the selection of crops, the choice of animals adapted to a specific purpose, the quantity and quality of manure produced on a farm, and the economy of agriculture during those months in which the soil is at rest and man should prepare for the season of growth and productiveness.

To fulfil all the designs of stock-feeding, care and skill should first be exercised in the selection of the animals to be fed, and careful consideration should be had as to the purpose for which they are to be selected in any given locality—as for beef, for milk, for young cattle, store cattle and dry cows.

Certain constituents of food animals require under all circumstances, viz.: sugar, starch, gum, oil, mineral matter and nitrogenous compounds, and the amount of these demanded is in proportion to the waste of matter in the body. Fattening cattle, milch cows and working oxen require more than dry cattle or young cattle kept for store.

These constituents are contained in hay, straw, grain, roots, oil-cake, &c., and the object of every feeder should be to obtain these in the most economical manner, due regard being paid to his farm and his market.

The speaker considered good English hay as the basis of all the most satisfactory food for stock, as it contained all the constituents he had named in a form bulky enough for our ruminant animals which require woody fibre for digestion. Its nutritive qualities are more concentrated than in straw, and less than in corn; fed liberally, and with proper judgment, it will supply all the wants of cattle on which no immediate demand is to be made, and the manure made from it is rich enough for all ordinary purposes. So much cannot be said of any other bulky articles of food. Straw, corn fodder and meadow hay will serve for variety, but they will not do as a substitute, and whenever they are used to produce beef or milk, they require a large proportion of more concentrated nourishment, such as grain, roots and oil-cake. He compared animals fed solely on straw or meadow hay to a pair of inflated bellows,

and said that by examining a meadow hay fed cow and calf in the spring, and using their manure, the full effects of coarse feeding upon the animal economy and upon the farm would be very apparent.

He said his own experience showed that meadow hay, combined with even a moderate quantity of a more nutritious article, was good. He then alluded to steaming, and said he had seen no exact and systematic statement with regard to steam feeding in this country, and he found that authorities in England differed very much with regard to its utility there. That it renders poor food more nutritious, there seems to be no doubt, but will it also increase the nutritious quality of good food, and consequently diminish the quantity necessary to be used? The question seems to be, said he, whether cutting and steaming coarse and poor fodder, and mixing it with nutritious, concentrated food like meal and oil cake and bran, is a more economical mode of feeding than supplying a sufficient quantity of good English hay, grain and roots, to produce the same result.

He stated that he was feeding 40 cows, in milk, with ten pounds of English hay, half a bushel of roots, two quarts of shorts and a quart of cotton seed meal per day. Calling the hay \$20 per ton, and the roots 20 cents per bushel, high prices at the barn, and the grain five cents per day for each cow, he found it cost 25 cents per day to keep each animal in the milking herd. The cattle are in excellent condition, and he saved the expense of steaming, fuel, cutting the hay, and the time and labor of mixing the feed. He wished to know the cost of feeding cows some other way.

Dr. Loring then spoke of root feeding and soiling, and said that in a northern latitude, in the neighborhood of cities and large towns, too much attention could not be paid to the raising of roots for cattle, as these are useful in every section, but more so near large places, and might be advantageously used wherever farmers are obliged to purchase their grain for winter forage, in the production of beef; and in illustration of this, he said that the beef raisers in Western Pennsylvania last year might have saved a vast amount of money when the corn crop failed, if they had raised root crops instead of depending on Ohio for corn. He said there were dairy farms where butter and cheese were made, and where the cows were dry all winter, where hay was very cheap—\$8 or \$9 per ton—where there was no necessity for a root crop.

Speaking of soiling cattle, especially milch cows, he said it may be useful and profitable where a market is near and pastures are scarce, but when a cow could be pastured for eight dollars a season, it seemed hardly judicious to adopt any other mode of feeding.

He then spoke of the use of oil cake here and in England, and showed that while we use less than 5000 tons of cake, the English use 240,000 tons, and while it has been freely offered here for 1½ cents per pound, in England, the farmer has paid 2½ cents for it. The extraordinary difference, said he, in the estimation in which it is held in the two countries, is worthy of careful consideration. It is probable, he further said, that the quantity per cow used by our farmers is too great, and he understood that the English farmer gave one quart per day to a cow, and for fattening sheep he said it was almost universally used in England.

It is true, said he, that we have no definite system of feeding among us, but perhaps this is impossible, as the crops, markets, the object and expense of feeding, all differ in different localities, and in this, as in every other practical operation on the farm, each man must exercise his own ingenuity in ascertaining what he is to feed to the most advantage, and how he is to feed it.

On motion of Mr. Eddy, of Oxford, the rule was amended so as to limit speeches to ten minutes.

Mr. HOWARD, of Boston, said the suggestions about oil cake were important, and the wonder was how we exported so much. English and Scotch farmers had informed him that it fetched \$10 and \$15 per ton more there than here. In relation to English stock feeding, there were two or three important points he would explain. 1. The English and Scotch farmer has generally a better knowledge of the feeding qualities of the animal than we have, being able to tell the value of the cattle on putting his hand on them, as to whether they would pay to feed for beef or mutton. 2. They have a more systematic mode of feeding, and then they consider the quality of the manure and its quantity. On the latter point he said that it was known that oil cake abounds in nitrogen, and the cereal crops destroy a large amount of this, consequently the manure from animals fed from oil cake produces more wheat, and is so much more valuable. He said that Mr. Russell, of Fife, Scotland, contended that this manure made a difference of from a penny to two pence per pound in favor of wheat.

ELIJAH WOOD, Jr., of Concord, said he had been farming for twenty years, had cut a good deal of poor meadow hay, and it had been his study how to feed this advantageously. He commenced with four cows in the milk business, and then cut 20 tons of English hay, and in 15 years he kept 24 cows on the same farm. If, said he, I can attribute my success to any one crop, it is millet. I first cut 1½ to 2 tons of millet, and soon increased to 20 tons. He said he had fed mostly for 10 years on English and meadow hay, mixed with oil meal, two quarts to a cow, which he con-

sidered equal to four quarts of Indian meal, and the cows held their flesh better on oil meal than Indian; the quantity he fed, he did not think injured the milk.

He leased a second farm, and on this, last year, he used 1100 loads of manure, as it was about run out, and proposed to do the same this year, and he could see the advantage of doing this, as where he now got 30 tons of English hay, in five years he should get 90 tons; and next year he expected to get 60 tons. He had raised most kinds of roots, but where he could get, on his farm, \$12 per ton for carrots, 80 cents a barrel for ruta baga, and 12½ cents per bushel for flat turnips, he preferred to sell them to feeding them to cattle, as he thought it better to buy grain. He further said he considered oil meal at \$35 per ton cheaper than corn at \$1 per bushel.

A cow in milk will eat 23 pounds of long hay mixed with four pounds of meal a day. He said he was not using meadow hay alone, but mixed it with less than a sixth part of English, and three pounds of cob meal, but he found that the substitution of the third pound of meal for the half bushel of turnips he had used until within a few weeks, did not quite keep the cows up in milk, but as he had not sale for any more milk, he thought he had done well in adding only one pound of meal to the feed. Millet is not so good as English hay, but is worth ¾ or ⅔ as much. He sowed a peck to the acre. Mr. Wood said he would give his cows four quarts of meal if he could sell all the milk he could make.

Dr. LORING said that Mr. Bowley, of Cirencester, England, a prominent dairyman and cattle-feeder, used no grain, and thought it would be more for Mr. Wood's interest to raise more roots and less grain. He, Dr. L., had laid in 6000 bushels of roots this winter, and he thought they would save him much in hay, and improve the condition of his stock. He had conversed a few days since with a very intelligent Berkshire farmer, who had told him that, for feeding stock, the best crop he could raise was buckwheat.

Mr. THOMPSON, of Nantucket, said he had a friend who kept 25 cows in milk. He cut much English and meadow hay and had his corn-stover. When he takes in salt hay and corn stover he puts it in layers so as to cure it through. He then runs it through the cutter and feeds to dry stock, and on this they come out well. Mr. T. said that he proposed to his friend to reduce his stock to 18, and to sell one quarter of his English hay and lay the money out in oil meal, Indian meal or dry feed, and he thought his cows would come out better and his manure would be worth more from the 18 than it was from the 25 cows. He fed as follows: As much hay as the cattle would eat clean, with one quart of Indian meal, and two quarts of



shorts, and the consequence was he had more, and better milk, and his 18 cows were worth more than the 25 would have been. He used no roots.

Mr. GARDNER, of Swansea, was in favor of root feeding, and said he had seen cattle kept in good order on straw, given morning and night, with half a bushel of roots at noon. Corn fodder was good, and he would give as much for the corn-fodder from an acre of ground, as for the English hay, produced on an acre for stock feeding. The question, in his opinion, should be, how can a man do the best with what he has?

Mr. ASA SHELDON, of Wilmington, considered English hay and Indian corn the best articles of food, and the relative value of roots as follows: 4 lbs. of potatoes or carrots equal to 1 of corn, while 8 lbs. of turnips were equal to the same quantity. This latter he considered very poor feed for working oxen. The profit on turnips depended on the location where they were raised, as where manure was cheap near large cities, they could be much more profitably raised than where it was worth \$8. Hay does not follow so well after turnips or potatoes, as they draw hard on the soil. Some farmers have not much meadow hay, but Mr. Sheldon said that the farmers around him were obliged to think it worth something. He said he considered land that produced good meadow hay, requiring no expense year after year but that of cutting the crop, was as profitable land as a farmer could have. He thought sugar was needed to make meadow hay approach the English. He said he chopped his meadow hay and mixed it overnight with warm water sweetened with a little molasses in a tight box, thus steaming it, and he found it did very well. He also gave his cattle many small potatoes, not being able to afford to give them the larger ones, as he had a good market for them, and he considered this was good for them. He considered Indian and rye meal about alike, though he preferred the latter for milk. He also thought one ton of dry corn-stalks well cured are worth more than the same green, and as good as a ton of English hay, and that working oxen would travel longer on corn butts than on any other food. He convulsed the audience with laughter by relating to them a couple of anecdotes of feeding cattle with roots alone.

Mr. WETHERELL, of Boston, spoke of the stock of Mr. Peters, and argued that although his feed was poor, by regularity and system he kept them in excellent condition.

Col. HEARD, of Wayland, considered a corn crop was one of the best a farmer could grow, but the great trouble was, farmers did not cure it properly. He cut corn at the roots, a little later than is commonly done, and cured in the air, as he considered this better than curing in the shade. He alluded to a neighbor of his, Josiah

M. Thomas, whom he considered a model farmer, and gave his plan of feeding twenty cows. In the winter he puts them in the barn, and keeps them there until spring, feeding them three times a day on cob meal and oil meal, and watering them twice. His stock is kept for milk, and he thinks his corn crop the best. He buys but little manure.

Mr. LATHROP, of South Hadley, spoke of his experience in feeding stock, and recommended the selection of the best animals, and then the best feed, as he considered cattle improved so much better on the best than a medium quality of food. He would give them all the good hay they will eat, and two quarts of meal per day. He spoke of oil cake and cotton seed cake, and said that among his neighbors the latter had been found, as fed, to be fatal to calves, and that it caused cows to give milk at the expense of the carcass. He related the experiences of several of his neighbors, and said that now, when they feed cotton seed cake, they grind the seed after the fur, which was supposed to be the injurious part, had been separated, and feed it clean. This was thought to be good, and he had heard no complaints of any injurious effects.

Mr. EDDY, of Oxford, advocated regularity of feeding, and the preparation of the food so that the cattle would have the most time to rest and digest it, as an important element in feeding stock.

Two or three other gentlemen spoke on the same subject, when the chairman hoped farmers would experiment in steaming food so as to be able to report next year on a matter of so much importance. The meeting then adjourned to Tuesday evening next.

The subject for discussion will be, "What are the best measures that our agricultural societies can adopt to satisfy the public conclusively which are the most profitable breeds of cattle for the farmers of New England to keep on their farms: 1st, for the dairy; 2d, for the yoke; and 3d, for the shambles?" Hon. JOHN S. ELDRIDGE, of Canton, will preside.

**TO CORRESPONDENTS.**—The comparative leisure of winter, with the farmer, and a new impulse which has awakened thousands to a sense of the pleasures and profits of the profession, lead, as we supposed it would, to a more direct, personal interest in its affairs. This is made evident in the unusual attention paid to the *matter of writing for newspapers*. There is no way in which one can gain agricultural information so readily and so rapidly, as by *imparting his own knowledge to others*. He feels the responsibility of an assertion, and observes and studies for the facts to sustain



it, so that our correspondents bless twice in their labors—first themselves and then the reader. We intended to say only this when we begun to write—that we have recently received a large number of excellent articles, with great thankfulness, and that we shall use them as fast and as appropriately as we can.

*For the New England Farmer.*

#### WHAT IS THE CAUSE OF THE POTATO ROT?

MR. EDITOR:—I do not know that you want to read or hear anything more upon this subject. You may regard it as a question already decided by the clearest and strongest possible evidence, by ocular demonstration, and thus placed beyond the possibility of a doubt. Without wishing to excite a doubt where no doubt ought to be entertained, yet considering the importance of the question, and the danger of being deceived and led astray by outward appearances, and pretended causes, I would urge a more careful and thorough examination into all the alleged facts and circumstances in the case. For, after all that has been said and done upon this subject, it is believed, that the real cause of the rot still remains unknown, and that the question is yet undecided. That insects are not the cause of it, is very evident from the following reasons:

1. So far as my knowledge extends in this locality, all the most delicate and early kinds of potatoes, such as the Jackson Whites, and others of like character, when planted very early, on rich and mellow soil, entirely escape the rot, because the tubers come to perfect maturity, and the tops all die, before the season of the rot commences, so that, afterwards, neither the blast nor the rot affects them.

2. My second reason why insects cannot be the cause of the rot, is, that if we plant in the same field and in the same neighborhood, some of the same kinds of potatoes, alluded to above, at the usual time of planting, that is, a few weeks later, we shall find that they will blast and rot, if it be a year in which the rot prevails generally.

3. My third reason why insects cannot be the cause of the rot, is the fact, that the blast and rot do not occur every year, but only take place in intermittent years; whereas, if they were caused by insects, they would have to take place every year in order to give the insects an opportunity to propagate their species: otherwise this particular kind of insects would become extinct.

4. My fourth reason why insects cannot be the cause of the rot, is, that the disease does not manifest itself in all places equally, or alike, but is confined to certain localities, more frequently to low, wet lands, and soils highly enriched by active, concentrated and stimulating manures, and extending along one side of a field, or across one end, or through the middle, and not over the whole field generally.

5. My fifth reason why insects cannot be the cause of the rot, is, that however widely, extensively and generally the blast prevails, it frequently turns out to be nothing but a mere blast which kills the tops and checks the growth of the tubers, but leaves them all smooth and bright, and, to all appearance, entirely unaffected by disease, which

would not, and could not be the case, if the blast were caused by insects on the tubers.

6. My sixth reason why insects cannot be the cause of the rot, is the fact, that all kinds of potatoes are not alike affected by the disease, but, on the contrary, some kinds are entirely exempted from it; such is the fact with regard to the black potato and some others.

7. My seventh and last reason why insects cannot be the cause of the rot, is the fact, that the potato rot always manifests itself, if at all, at a particular time, within the limits of a few days, which time is always preceded by the most remarkable thermal changes in the state of the atmosphere—by a few days of extremely hot and dry weather, succeeded by copious, warm rains, and accompanied by an oppressive, sultry and muggy atmosphere.

Such are my reasons for disbelieving that insects are the cause of the potato rot. Though I have offered but seven reasons, and I believe them all to be true and valid ones, yet, if only one of them shall stand the test of examination, and prove to be true, the insect system is as "dead as a door nail." I freely admit, that I have no microscopic glasses to look through to aid my vision; but, if I had, I do not think I should become a convert to the insect system, because what is now regarded as a cause of the disease, may be only a concomitant of it, or that which follows of course. For instance, because I have found some decayed and decaying vegetables full of insects, must I therefore infer that the insects are the cause of the decay? Or because I have found a dead sheep full of maggots, must I therefore infer that the maggots have killed the sheep? You will readily perceive from the foregoing, that I regard the insects as an effect or consequence of the disease, and not as the cause of it. I repeat, therefore, that the cause still remains unknown; the question is yet undecided.

*Warwick, Mass., 1860. JOHN GOLDSBURY.*

*For the New England Farmer.*

#### HOW TO RAISE GESE.

MR. EDITOR:—I recently found some inquiry in the *Farmer* about raising geese, and as I am an old hand at it, I thought I would reply. When they commence laying, which is usually April or May, a box with bran or cotton on the bottom should be provided, so that the eggs will not roll about. As often as there is an egg laid in the box, the rest of the eggs should be turned over very carefully. When the goose is done laying, and wants to set, she will make her nest, feather it, and set on it; the nest should then be taken out very carefully, and a nest made with about four quarts of horse manure and some chaff on that; let it be made large and commodious, and then lay the nest that the goose made on the other very carefully, not disturbing the straw nor feathers. Fill in all around the nest, making it about level, so that the goose can go on and off with ease.

The goose sets four weeks; mind the time correctly. Two or three days previous to the time of hatching, place the eggs in a broad, deep thing, with milk-warm water enough to let them swim, and those that have live goslings in them will bob round and swim, and those that have not, will

sink or be still; the gosling will break the shell on the end that stands out of the water.

Do not put the eggs in water after the shell is broken, but drop some water on the goslings bill when the gosling is hatched and is nest-dry. Take it in the hand, and with the thumb and finger press the bill open and drop in a pepper corn, and then some sweet cream; have ready some green turf, place it round the nest, and sprinkle on it some Indian dough, where the goose will pick, and learn her young. They are a very tender fowl, and require care till their feathers are grown, after that they need not be fed, if they run in the road. They can be plucked three times the latter part of the three summer months; some think it very wicked to pick them, but they shed all that you pick, quills and feathers; they can be tried, and if they come hard, wait a week or two. Do not let the young go to the water too soon; have a short thing for them to drink out of; if they should get chilled, take them to the fire and put warm ashes on their back, and feed them with cream with a tea spoon.

Two geese are better than three, and one is better than two, as they are apt to beat each other, and unless they hatch all together, they will beat the young. When I kept geese, I fed them on corn till the grass grew, and not after that till they were fatted in the fall.

I am over 60, and write without spectacles.

Derry, N. H., 1860. MRS. S. PILLSBURY.

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY FEBRUARY NUMBER OF N. E. FARMER.

Page 58.—By a slight change in the words of an old aphorism we have, on this page, a rule of life, or an aim to direct our steps in it, which, if practically and generally adopted, would work a most gratifying change, both in the consciousness of those adopting it and in the impressions which their changed mode of living would make upon observers. We refer to the rule or aim thus expressed—"We should not live to work, but work to live." Quite too many lives are framed by a different and a less noble and less sensible plan. Thousands live as mere drudges, toiling and slaving through all the work their physical strength will endure, not because it is necessary that they should do so in order to live comfortably, tastefully, nobly and usefully, but for some less sensible, less worthy, less elevated purpose. But though we would fain make an effort to demonstrate the superiority of this life-plan, and of its fruits or results, and to recommend thus and otherwise its more general adoption, we must, for the present, leave it with each reader to consider the two different schemes of life brought before him in the passage referred to on this page, and to ask himself if there is not here a hint by the adoption of which he might make his life more noble, more dignified, and more satisfactory; less of a wearisome toil and drudgery.

Page 58—*Abundance of Weeds.*—The large quantities of weeds here mentioned seem to be an exaggeration; and if so considered, this brief article may fail of its intended effect. But if the readers who are disposed thus to regard the numbers here given would make a trial for them-

selves with any clover, grass, or other small seeds, which they may propose to sow in the spring, they might find enough of weed-seeds to make them more cautious and careful as to this matter, ever after.

Page 62—*Subjects for Discussion in Farmers' Clubs.*—It needs but a small degree of penetration to perceive that Mr. Pinkham has looked a little deeper into subjects and questions concerning, and connected with, the rights and interests of farmers, than is usually done. He may have arrived at some conclusions which are erroneous and exaggerated; but all farmers, even those who may differ most widely from him in opinion, should be ready to acknowledge their great obligations to him, inasmuch as he has, most impressively, arrested their attention, and fixed their thoughts upon matters which are so intimately related to their rights and interests as a class. Mr. Pinkham will be gladly and gratefully listened to by discerning and thoughtful members of our hard-working fraternity, whenever he may be pleased to address them upon any of the questions and topics which he has now and recently proposed for consideration. A few exaggerations in estimating the cost of a crop of corn will not greatly trouble the more discerning, for they will see that the drift of Mr. P.'s suggestions reaches farther and deeper than the mere profit or loss of any particular crop or department of farm business. We hope leisure, inclination and opportunity will permit Mr. P. to place us under still greater obligations to him; which he will certainly do every time he gives us, either a mere glimpse, or a pretty full disclosure, of his somewhat peculiar, but very important, cogitations upon the rights and wrongs of farmers, or the promotion and neglect of their interests as a class.

Page 63—*Cost of Keeping Cows.*—Among the indirect or incidental advantages likely to result from the discussions originated by Mr. Pinkham's recent communications to this journal, this is likely to be one, viz.: a reconsideration of the question, what is the value and proper price to be charged by farmers for pasturing cows for the residents of a village? We are inclined to think that Mr. P.'s estimate that pasture is worth about 8 cents a day, or 50 cents per week, is more nearly correct than that which forms the basis of the usual practice of charging 25 cents per week. Our reasons for thinking so are chiefly these two:—  
1. One acre of ordinary pasture is not sufficient to provide sufficient sustenance for a cow for half a year, or the pasturing season. The experience of dairymen in the dairy counties of England affords sufficient proof of this. In Gloucestershire, for example, about nine-tenths of the land on the dairy farms is in pasture, and the usual practice is to keep at the rate of 25 cows to each hundred acres. One acre and a half of grass is the smallest allowance usually made for each cow during the summer and fall, and this is sufficient only when the grass is very abundant, or in fields which have been under-drained and top-dressed with fertilizing materials. Two acres are required for summer pasture, and two more for winter hay, when the land has not received extra care, or is not more than ordinarily productive. The cost of keeping a cow is estimated in Gloucestershire at \$20 for the summer and \$25 for the winter, and in Cheshire, another county famous for cheese,

the cost of keep for a cow is calculated at \$17,50 for the pasturing season, and at \$27,50 during the winter. 2. Allowing then that a cow requires for fair keeping as much grass as two acres will produce, the farmer who provides pasture at 25 cents per week, or as is the custom in several places, at \$5 for the season, gets wonderfully poor pay for the produce of two acres. To get anything like a proper compensation, or "to save himself," he must pinch the cows, by putting on more than at the rate of one cow to each two acres. He ought to have \$5 or more for each acre.

MORE ANON.

#### VALUE AND USES OF ROOT CROPS.

We have often urged the importance of roots as a feed for stock, as the medium or means through which to bring up our farms to a higher state of fertility. After many years of observation of their use, together with a personal use of them during the same period, we feel quite free to say that their general cultivation and judicious use will result in a greatly improved and profitable husbandry throughout New England. There are many reasons for this opinion which we might give here, but prefer to waive them for the present, in order to make room for some statements in regard to recent crops obtained by another hand.

The paper from which we quote, was an essay read before the *Concord, Mass., Farmers' Club*, by Mr. JOHN B. MOORE, of that town, and without any expectation of its being published on the part of the writer. It was one of the essays of the Club, regularly read at the meeting immediately after the reading of the journal of the preceding evening. The writer had been speaking of the profits of the potato crop over that of raising milk, and added,

"Then there are other roots besides potatoes, which I think we should cultivate more extensively for feeding to our stock, and as a substitute to some extent for grain. Carrots for horses and oxen are, as a portion of their feed, worth certainly one-half as much as oats per bushel; and no feed keeps a horse more sleek and healthy, and they can be raised for less than *twelve cents* a bushel in an ordinary season. I had only  $\frac{1}{2}$  of an acre of carrots last year, and they cost me as follows:

	Dr.
To plowing and harrowing $\frac{1}{2}$ of an acre 3 times.....	\$1,50
To 10 loads compost manure, charge $\frac{1}{2}$ to crop.....	7,50
To carting manure, spreading and seeding.....	1,50
To interest on the land.....	1,50
To hoeing and weeding.....	7,00
To harvesting.....	3,00
Amounting to.....	\$22,00

Or at the rate of \$88 an acre. The crop was 180 bushels of carrots, for which I was offered \$13 per ton in Concord. Deduct the worth of the tops, which I think were well worth \$2, and the cost of raising them would be 11 1-9 cents a bush-

el. They were grown in the following manner:—Sown about the last of May in rows 2 feet apart on a flat surface; hoed with a wheel hoe, thinned and cleaned before the weeds had a chance to get much of a start, and afterwards kept clear from weeds throughout the season. A large item of the cost of cultivating roots of all kinds, but more particularly carrots, is the weeding. This expense can be reduced one-half by proper management, and in this way: When you prepare your land for the seed, be sure and have the soil finely pulverized and smoothed with a rake or brush-harrow, and without any stones or rubbish of any sort being left to interfere with the operation of the wheel hoe. Let the rows be sown perfectly straight, for with straight rows you can run the wheel hoe faster, and much nearer to the plants, by which you will save a great amount of finger work; then be sure to weed and thin them as soon as they begin to show their second leaves, as at that time it will not be more than one-half as much work to weed or to thin the plants as it will be if you let them go a week too long.

Last year I had half an acre of ruta bagas, grown on an old piece of pasture land, broken up with a sward plow, about the 20th of May, and with the intention of improving the pasture; it was manured with a compost made with 40 horse-cart loads of peat muck, 200 bushels leached ashes, and \$5 worth of ground bones, which was spread evenly on the soil and worked in with a horse-hoe. The seed was sown with a machine, in rows thirty inches apart, on a flat surface, about the 25th day of June, and afterwards thinned, and cleaned from weeds as soon as the plants showed their rough leaves.

The after cultivation was done by a horse and cultivator passing through the rows three times; there was harvested from the half acre 350 bushels of very fine and smooth ruta bagas, after the leaves were trimmed from them.

The cost of the same is estimated as follows:

	Dr.
To 40 loads of compost manure, one-half to be charged to the present crop.....	\$18,00
To plowing.....	1,00
To carting manure, spreading and working it in.....	3,50
To seed and seeding.....	50
To interest on the land.....	1,50
To weeding and thinning.....	2,00
To harvesting.....	6,00
Amounting to.....	\$32,50

And at the rate of \$60 an acre, deduct the worth of the tops, estimated at \$2,50, and the cost would be 8 $\frac{1}{2}$  cents a bushel.

I also raised quite a lot of sugar beets and mangel wurtzel, which cost me a fraction less than 7 $\frac{1}{2}$  cents a bushel. The beets I grow in a different manner, and on a soil much more moist. They are sown on ridges made by turning two furrows together—tops raked down, and one row of beets

sown on each ridge; plants thinned to 10 inches apart. But to grow roots at the cost I have named, it is necessary that all the details should be attended to, in their proper season. For instance, if a person seeds a piece of land with carrots, (a plant which when young is rather tender,) and leaves the soil full of hard lumps, and the surface covered with rubbish, it will be more work to weed them, the plant will not come up so evenly, and the result will be a partial failure of the crop, while it will cost more to take care of than it would if it had been done right in the first place; these remarks will apply to the cultivation of other varieties of roots also.

If I am right, and we can grow ruta bagas for 8 or 9 cents, and sugar beets, and Mangel Wurtzel for  $7\frac{1}{2}$  cents a bushel, or even at a few cents more per bushel, would it not be a cheaper feed than grain or oil meal? Sugar beets and Mangel Wurtzel I regard as a very excellent feed for milch cows. By giving a cow one peck of beets twice a day in addition to hay, you will get a reasonable quantity of good healthy milk, which you need not be ashamed to sell, or to make into butter.

But if a person wishes to sell milk, and is willing to sell anything that he can run through a cow's udder for milk, he can probably get a larger quantity by substituting oil meal or some feed of that nature for the beets, for one or two years; but for a term of five years, I have no doubt a cow would produce more milk by being fed with the beets, than they would with the oil meal. Beets have this advantage over ruta bagas; they can be kept in a house cellar as easily as potatoes, and without any unpleasant odor from them.

It is very certain to my mind, that the whole value of roots for feeding to cattle, is not entirely in the amount of nutriment that they contain, but they also aid in the digestion of the hay, and other feed, and in reasonable quantities promote the health of cattle of all kinds. I think that a large portion of the loss sustained in cows, every year, results from feeding oil meal and grain in large quantities. The garget, I think, is often caused by the same thing, which creates an unnatural extension of the milk vessels, followed by an inflammation of the udder, and often results in a serious loss in the value of the animal so affected; by feeding more roots and less grain, that would be remedied to some extent.

I do not wish to have it understood by these remarks, that I would advocate the exclusion of grain from the feed of stock, and particularly of milch cows, but that for winter feeding, I would use a larger quantity of roots, with less grain than many now feed, both on the score of economy in keeping, and the greater durability of the cows. It is said by eminent writers of agriculture, that

the increased cultivation of turnips in England and Scotland has done more for the interest of agriculture, within the last fifty years, than all other improvements combined, and that it has put millions of dollars in the pockets of the farmers of those two countries. If the culture of turnips has done so much for them, then the culture of the various kinds of roots ought to do something for us."

*For the New England Farmer.*

#### WORMS IN APPLES.

MR. EDITOR:—I was interested in your Groton correspondent, Mr. White, in relation to the "worm in apples," not the apple worm, described in your last issue. I have a sweet apple tree on my grounds in New Hampshire, about sixty miles from this city, the fruit of which is of a superior quality for cooking purposes. I have noticed that this apple, when first ripe, early in September, is very clear, and free from the apple worm. I do not recollect of ever having seen a worm of that description, in the fruit; but within the past few years, I have noticed, that after the apple has been taken from the tree in a ripe state, and kept ten or fifteen days, the worm described by Mr. White appears in the meat, scarcely perceptible at first, but in full size is about one-eighth of an inch in length. They are very abundant, and perforate the whole apple, leaving it like a honey-comb inside, while the outside is perfectly fair and smooth. I have never seen the worm in any fruit, except the sweet apple. I know of no preventive, except to use the fruit when first ripe, as you would cook fresh meat in warm weather, before being subjected to the outward influences which fresh meat is too often subjected in the summer season.

*Boston, Feb. 28, 1860.*

J. D.

*For the New England Farmer.*

#### PIPES FOR CONDUCTING WATER.

In your paper of this date I find an answer to my suggestion in yours of Jan. 23th, about "pipe for conducting water," by the Boston Belting Co.—or rather by Tappan, McBurney, & Co., which is good as far as it goes—but as you remark, "It is information that will be valuable to many persons," I wish to know more about this pipe—

1. How long will it last?
2. Will it make the water taste of India-rubber?
3. Is it wholesome? and this last is the most important item.

I know of an elderly farmer in this town, who being out of health, thought lead pipe the cause, and dug a new well this last year to have water handy, and by some way to avoid lead pipe.

Another who was out of health, and was persuaded to think lead pipe was the cause, took it out of his well less than a year ago and put in gutta percha. The lead pipe he took out was as clean and as pure lead color as the day it was put in—no corrosion or appearance of decay. This was from a well of soft water, as pure as water could be from any well.

A READER.

*Billerica, Feb. 16, 1860.*

### "ADVICE" ABOUT FARMING.

Farm described—Advice asked—Uplands exhausted—Deficiencies made up by income from woodland—Why lands are not prolific—Meridian of life passed—Profits of farming—\$600 expended and nothing gained by it—Means of making old age comfortable—Cranberry culture—True farming very little understood.



WE HAVE a letter before us from "W. J.," Wells, Me., describing his farm of 80 acres, in general terms, and one or two portions of it in special terms, and asking our "advice," as to what course he shall take to make it more profitable. The writer states that he "is past the meridian of life, and there seems to

him but one chance more to see the old farm brought up." This chance, if we understand him correctly, lies in the reclamation of a swamp and appropriating it to cranberries. He adds—"my upland is very much exhausted, and my timber lot is also on the decline, which I, as well as my neighbors, have had to resort to, to fill up the *vacancies*." To fill up the vacancies! Those words are quite significant. They mean, probably, that the cultivated products of the farm have not supported the family, and the spontaneous growth of the forest has been resorted to, to make up the deficiency, or in the expressive language of the writer, "to fill up the vacancies."

Now these "vacancies" are just as much the natural result and consequences of an *exhausted upland*, as it is a natural result that water shall run down hill,—or that the store-keeper should soon have nothing to sell from shelves which he is exhausting every day, and which he does not fill again. It is as unreasonable to expect that land can be perpetually cropt, and still continue productive, as it would be that the meal chest or flour barrel should continue full without ever adding to them.

The wise and beneficent Author of nature has so ordered things, that we are to supply our necessities and comforts by our *industry* and *skill*, and without the exercise of these we shall gradually go back to an aboriginal condition, the first indications of which, with the farmer, is "exhausted uplands," and a resort to the products of the forest or the sea, in order to eke out sufficient for subsistence.

The very fact that the uplands fail to produce their former supply, that they give evidence of gradual inertness and exhaustion, is as much cause for alarm to the farmer as to the merchant, when he finds his sales returning him less than his goods cost. Both inevitably lead to bank-

ruptcy; but with this difference,—the loss on the merchant's goods does not cut off the prime articles of life, while that of the farmer strikes at the very means of existence, because what he produces sustains not only himself, but his surplus sustains all others, gives speed to the locomotive, wings to commerce, and life and activity to the loom and anvil, as well as every literary, artistic and scientific pursuit of man.

Our correspondent adds, "I have two sons, one of whom is of age, and he will take hold with me, if I can make him believe that farming can be made profitable." Have you not made him believe it? How did you begin life? Did the 80 acres, with their buildings, come to you by descent, or have you earned them as thousands of others have done, with your own hands? If you earned them, and have supported yourself in the mean time, there is the evidence of profit. If you inherited them, have they not sustained you, and enabled you to bring up the family, providing them with a tight roof, a good bed and ample table all their days? And after food and shelter has been supplied, have they not always enjoyed that other prime blessing of life, a *home* to turn to, when sickness, or hunger, or fatigue has claimed relief? Have not the profits of farming furnished all these, and a thousand times more, even though your uplands have become *exhausted*, and your lowlands have produced but little, compared to what they would have done under skilful management?

We are sincerely desirous to give you profitable advice, and the more beneficial it should prove to you, the more happiness it would confer upon us. But how can we do it? We know nothing of the nature of your soil—its composition, accessibility, locality, whether it is arable or not, what are its advantages for drainage, and other means of amelioration; nor any thing of your markets, or of the prices which products might command. Nothing short of a personal examination could enable a person to answer *profitably*, the questions you propound. A gentleman once asked us similar questions, after having expended \$600 to improve a large field, without accomplishing his desires. We could not advise him satisfactorily, without looking upon his land, any better than he could judge of the value of this paper, without ever reading, or hearing a word of its contents! After visiting the land, and the suggestions we made were carried out, he informed a neighbor that the advice springing from a single hour's examination was worth \$200 to him! But, like most persons, he supposed *he understood all about farming*, and it was not until he had expended \$600, and suffered two years' delay, that he felt compelled to refer to those who had made the special improvements he had in view, a practice, and a study.

This illustrates the whole matter, and notwithstanding you are "past the meridian of life," if you wish to drain and bring into cultivation your "spruce swamp," or that "large tract of flat land with white sand at the bottom, seven miles from the sea-shore," we advise you to call upon some candid person of experience to examine it, and give you the benefit of his judgment, and if he charges you \$10 for his day's labor, you will be quite likely to save more than ten times that sum for the outlay.

It seems to us, that you have the means of making your old age glad with competence, and that your "sons may be as plants grown up in their youth," to comfort your declining years. That flat land, with white sand at bottom, is probably just what the cranberry requires. Try a small piece of it by clearing off all vegetation, and set the best native plants you can find about you as soon as you can work the ground this spring. Set the plants in bunches of two or three, or more vines together, twelve inches apart, or even nearer, if you have time and patience; then do not allow a weed or spear of grass to grow among them. Try a square rod, if you have not made arrangements to do more, and the success, or want of success of this, will indicate whether you should do more.

With these "crumbs of comfort" we must leave you, and will add for the general reader, that the letter upon which we have been commenting, is one of a class of which we are receiving many, and which cause us some anxiety, because we have so little power of returning satisfactory replies. There are some branches of farming as yet very little understood, and before the farmer embarks upon them who has not had experience, he should call in the aid of some person who has, if he would make his operations pleasant and profitable. The true mode of cranberry culture is known to very few, merely because they have never given attention to the subject. A wise man will not risk his reputation and his money in an enterprise which he knows little or nothing about.

**ANIMAL FOOD.**—Dr. Hayes, in his "Arctic Boat Journey," reports that the Esquimaux live upon exclusively animal diet, their daily allowance of food being from twelve to fifteen pounds, about one-third of it being fat. The doctor states that he has seen an Esquimaux eat fully ten pounds of walrus flesh and blubber at a single meal, after a hunt, or when about to begin a difficult journey. This large consumption of hearty food is a great shield against the cold. White men in Arctic regions are continually craving a strong animal diet, and will drink the contents of an oil-kettle with evident relish. A choice Esquimaux lunch consists of raw birds washed down with oil; the great luxury of the tribe is a soup made by boiling together blood, oil and seal meat.

*For the New England Farmer.*

### ON PRUNING APPLE TREES.

**MR. EDITOR:**—Having been an attentive reader of agricultural papers, I notice that many people are in doubt when and how to prune their apple trees. Some say the fall, others spring, but many recommend the summer, while most trim in spring.

I wish to ask you, and through you, the readers of the *Farmer*, why you prune at all, (I mean after the tree has been set six to ten years, and begins to bear fruit?) Is nature at fault in growth and formation of the tree, or is the fault somewhere else? Of what possible benefit can it be to rob a tree or plant of its leaves or lungs? I am in doubt whether this generally prevalent desire to cut, saw, scrape, and wash apple trees, is an acquired one, or whether it is instinct, as in the hawk to eat the bird, or dog to bite the cat; but certainly we cannot ride in the cars, or along the highways, without seeing orchards whose owners seem to have the same ideal for a shaved and cropped tree, that the fancy have for a shaved and cropped horse or dog, and the limbs of the trees, after they have righted nature a little, resemble as many dogs' tails with a tuft at the extremity.

We will suppose the proprietor of an orchard about to commence upon a thrifty tree with a compact head; he thinks a moment, can it be that there is too much leaf or branch? Would it not be beneficial in the hot and scalding days of July and August, to have the trunk and limbs protected by a dense foliage? He also recollected of hearing Farmer Thrifty's old gardener say that a tree breathed through its leaves, and that the leaves are to the tree, what the lungs are to the animal, to purify and vitalize the "river of life." Now it so happened that Captain Cut-and-slash had an orchard adjoining his, that had been pruned after the fashion of the times, and he thought he would wait and see the result. In a year or two, he observed that the captain's trees began to have moss on them, they did not grow as formerly; some of the limbs died out, and what did not, had black spots upon many of them, and by cutting into the black, dead bark, he could discover white worms there. Farmer Thrifty was called; he said his trees did the same when he pruned heavily, but since he had left off, his trees did better, bore quicker, and more perfect fruit. He said the tree being robbed of its lungs, was unable to elaborate its sap; it became sour, bitter, poisonous—decay and death were the result. He termed it "consumption."

Now, Mr. Editor, my experience has taught me, that to remove limbs in spring time, before the leaf has started, is entirely and altogether wrong, and also any time after the tree has begun to fruit, to remove to any amount is injurious: better plow, and manure rightly, remove the dead wood, and leave nature to do the rest. H.

*Bedford, Mass., 1860.*

**SANDCRACKS IN HORSES.**—The following recipe for sandcracks I have used for many years with uniform success: Common tar, honey, elder ointment, (equal portions,) to be rubbed in between the hair and the hoof, twice a week, or oftener, if necessary.—*London Field.*

*For the New England Farmer.*

### IS FARMING PROFITABLE?

This question is worthy of all the consideration which it has received in the able articles published in your columns, and naturally leads to others equally important. That agriculture is profitable, the results of particular crops have been relied upon as proving the affirmative, while it is well known that a farmer may raise seventy-five bushels of Indian corn per acre, and have many acres of it, and yet the same year lose a fruit crop, worth three times his corn crop; so with his other crops.

In the latter days of Mr. Jefferson, it was proposed to obtain an act of the Legislative Assembly of Virginia, by which his property might be disposed of by a lottery, to extricate him from debts incurred by his generous hospitality, in entertaining almost daily a great number of distinguished guests, foreign and domestic. An objection was made to this project, that it savored of gambling, and was derogatory to the fame and incompatible with the dignity of the Ex-president. This probably prompted Mr. Jefferson to write his essay on gambling, in which he says "that the farmer is the greatest of all gamblers." A quarter of a century ago, when I first read this essay, the remark was not particularly noticeable, but much subsequent reflection, and some little observation, have convinced me, that this remark, as most others of this great man, contains more truth than poetry.

I do not believe that farming in Massachusetts is a profitable business compared with other pursuits. Farming is a term that admits of many definitions, varying according to the systems of particular localities, climate, soil, &c., &c. I use it as applying to the cultivation of every thing raised in this State, and farming is generally profitable according to climate, natural fertility of the soil, facility of production, the price of land and labor, taxes, competition in the market, and the style of living and doing business, demanded by the imperious decrees of fashion.

Now, is farming a game of chance as declared by Mr. Jefferson, or is it a pursuit in which a man can make as definite calculations of expenses and results as are made in the sister arts? Must the mass of farmers live as cheap as they can, and trust to God, for the result of their labor? The painter, if he is master of his business, knows the exact cost of his paints, the quantity necessary to cover a square yard, the number of yards to be covered, the cost of laying on the paint, the margin of his profits, which his capital will return, and how often he can turn it; the mason, the number of bricks necessary for a given wall, the time required to lay them, the cost of labor, and the exact result of his operation; the carpenter, the quantity of lumber necessary for a given structure, &c. So it is in regular and legitimate trade and commerce, with the advantage of insurance against shipwreck, &c., while the farmer, in the failure of crops, must seek his insurance in the declaration that "while the earth remaineth, seed time and harvest shall never fail."

In the sister arts generally, skill, sound judgment, experience, and definite calculations, are not the sport of chance, but accomplish their purposes with almost as much certainty as instinct attains its ends.

How is it now with the farmer? Can he, when he plants his potatoes, or his orchard, with the greatest skill and judgment, tell anything about the result? Can he hasten the completion of his job, prevent drouth or rain, frost or the rot? These are things over which he has no control, but things controlled by a power before which his puny wit must bow, his boasted skill and science become foolishness, and as fruitless as an iceberg. Now let a general farmer cultivate all the crops; in no season will more than half of them be successful in Massachusetts. The rot may strike his potatoes, his carrot seed may not vegetate, his corn may fail, his turnip seed, sowed the 25th of July, wet or dry, may not sprout till frost comes, his grass land, stocked down with great skill and care, may fail in various ways, and in no season are but a few of the carefully calculated results realized. Man sows, but God gives the increase. Hence that strange faith so characteristic of the farmer.

Does any such uncertainty as this attend the sister arts? Can any business in which man's best faculties are thus baffled and contracted, (other things being equal,) be compared with this, where the operator may be master both of the inception and result of his labor?

That Indian corn may be raised for fifty cents a bushel, or is more profitable than other crops, does not prove agriculture, in general, profitable, for the character of the soil limits the number of acres which can be planted, and admitting that a farmer may raise 100 bushels per acre, the same season in which he does this, his loss from the failure of his oats, rye, barley, potatoes, hay or fruit, may be three times the value of his corn crop.

That agriculture is unprofitable, compared with other business in Massachusetts, is the practical judgment of farmers generally, deny it as you may, gloss it over as you will; else why do so many of their sons desert the plow, hardly enough remaining at home to take care of the good old fathers and mothers? Have they not seen their fathers and neighbors, hard-working and frugal, farmers till sixty years of age, still relatively poor, while their relatives and equals who have engaged in other pursuits are rich, clad in fine linen, and fare sumptuously every day, with leisure to enjoy life, with means to purchase its pleasures, and comforts, too? Why are farmers willing, even desirous, to have their sons quit the farm, and seek an easier and shorter road to fortune and happiness, than they have trod?

The truth must be told, they desire a better life for their children than they have had, and sigh for the means to put them into a position to attain it.

The inevitable conclusion to be drawn from this general desertion of agriculture is, that farming is unprofitable. The almighty dollar is the moving principle, the stepping stone to command the blessings of life, and not the avoidance of hard work, but work that does not pay; the condition of eminent success in all the arts, is honest hard work, indomitable labor with the head and hands united. There is no other potent to success. Farming is the most delightful of all occupations, where it can be pursued for its unalloyed pleasures, and not for its dubious profits.

Perhaps God, when he ordained that man



should earn his bread by the sweat of his brow, designed to protect him from the dangers of excessive wealth, from that effeminacy and deterioration consequent upon self-indulgence and sloth and from that debasing slavery to avarice which grows with the power and facility of accumulation.

I admit that a man can live by farming, but how does he live? how does he dress? what are his pleasures? when has he leisure? at what age can he retire from business, and live at ease with dignity upon the fruits of his labor? How often can he go to the White Hills, to Saratoga? when can he visit the battle-fields of his fathers, or the monuments of their fame, with his family, and have his business support it? Trips to Europe, or even to the national capitol—can he make them?

Yes, a man can live in Massachusetts by farming, but only by economy and self-denial, unknown and unpracticed in other pursuits. Take a survey of any common country town; who are the rich? Men that live, and not stay on the earth. They are men who have done something collateral to farming, traded, shaved notes, lumbered, &c. True, there is now and then a man with the strength and constitution of a giant, with a Yankee wife to match him, with mind enough to have been a Webster, with a will like Napoleon's, who by working sixteen hours a day in cultivating the earth, and selling its products, has made a few thousand dollars, but this man is an exception. In commerce, he would have been an Astor or Girard; in manufactures, an Abbot Lawrence; in science, a Morse, Humboldt, or a Stephenson; in law, a Mason or a Dexter; in the pulpit, a Channing; in letters, a Prescott or a Macauley, but he is obliged to be unknown to fame, and as untravelled as a Japanese.

Now, I know a very skilful farmer, who boasted that he made \$1000 in 1856. One of his neighbors said that "he could prove that he lost \$400." On being informed of it, he replied that "Mr. — knows nothing." "I don't know about that," replied his friend. "Well, what was your investment?" "\$10,000." "Well, the interest on that is \$600. What was your wear and tear, which you have not calculated?" "About \$350." "What was your own labor worth? The man who took your place on the market wagon has \$500 a year; you have earned as much. Set this down at \$500. Well, your wife has worked hard, kept no girl, and has done all the work in your great family of hired men; had she worked as hard for others, two or three dollars a week would be considered little enough. Set her work down at \$150. Now, how does your account stand?

Interest on investment.....	\$600.00
Your labor.....	500.00
Wear and tear.....	350.00
Wife's work.....	150.00
	<hr/>
	\$1600.00
Offset improvements.....	250.00
	<hr/>
	\$1350.00

"Had you not gone on to the farm, you might have had \$1,350. Instead of which, you have but \$1000, and a net loss of \$350."

Take a survey of farmers generally in this State. Have they doubled their property in twenty years? Certainly not. Then they have not made six per

cent. on their investments, and all their labor is lost. Well, they have reared families. What of that? All the members of their families have done work enough to have commanded in other pursuits much more than a living.

Again, compare men of like ability and habits engaged in farming and the sister arts, and what is the result? I know two brothers of equal education, (not an uncommon case;) the superior of the two inherited the homestead, the other went into trade in Boston and inherited nothing. They are both well off. The farmer is worth \$25,000, and the other \$150,000, and has not done a quarter part as much hard work. Just such was the case with their father and uncle. Now the farmer, by his mere skill and labor in other pursuits, might have been worth \$30,000, for his equals in the vicinity have done it in the sister arts,—masons, carpenters, overseers and traders. I compare equals in habits and integrity.

These facts and results are confirmed by general observation, and are too true to be overlooked, and naturally lead to the inquiry, why is not farming in this State as profitable as the sister arts, and what can be done to make agriculture (the nursing mother of all true greatness, and the most noble, elevating and pleasant of all human pursuits,) as profitable as other business?

H. C. MERRIAM.

#### LUMBERMEN'S CAMPS.

The editor of the *Ellsworth American*, having recently visited the Maine lumbermen in their backwoods camps, gives the following description of their winter habitations:

"The camps of these hardy and laborious men are made of logs, and covered with 'splits,' which are long shingles, made of cedar, and rived and shaved. These are again covered with boughs. In the centre of the camp is the fire, extending half its length, with an open space just as large in the roof, for the escape of the smoke. A modern improvement has been introduced—the fire dogs, or andirons. These are made from three to four feet long, with a foot in the centre, and large enough to hold a large quantity of wood. They are really a pair of these indispensable articles welded together, with one foot in the centre to strengthen the double-headed 'fire-dog.' One of the luxuries of camp life is to sit on the 'deacon seat' and watch the flames as they issue forth from the hard wood fire, the product of numberless long and large sticks of wood, big enough for an old-fashioned 'back log.' The 'deacon seats' are sticks of timber, hewn and squared, and placed parallel with the fire, and on each side of it, for seats. Back of these seats, are the dormitory apartments. A good foundation is made with cedar or spruce boughs, on which are spread, as covering, a number of 'comforters' made thick and warm with cotton batting.

One of the curiosities of these habitations, is the 'bean oven.' This is a hole excavated at one end of the fire, and near the fire-dog, in which, after being sufficiently well heated with coals, is placed a large iron pot filled with beans, having a sheet iron covering jutting over the outer rim, and down its sides, to keep the ashes out. This is

covered all over with coals and hot embers, and left to cook through the night while the men are sleeping. In the morning the 'pot of beans' is taken from its bed, and the beans are on the table for breakfast, steaming and inviting enough to tempt an epicure. One of these camps had a dining and cooking-room, in addition to the usual accommodations, and also a good sized cook stove. There are, generally, from fifteen to twenty men to each camp. In all that we visited, quietness, order, industry, and the best of feeling, existed among the inmates."

#### EXTRACTS AND REPLIES.

##### WATER PIPES.

In the perusal of your highly valuable paper of the 28th inst. I noticed an inquiry made in relation to what kind of pipe is the best for conveying water, and also where it can be obtained? My experience in the matter has been, that after the water had remained in lead pipes for a time it became unpalatable and unfit for use. I next used the so-called block tin, but in a very short time it was crushed and in quite a leaky condition. I was then advised to adopt cast iron pipe lined with glass, but on considering the matter, thought it not best to do so, as the earth is liable to settle upon the glass and break it; I am now using the galvanized wrought iron pipes introduced by Mr. Norton, 74 Sudbury St., Boston.

Medford, Mass., 1860.

SUBSCRIBER.

##### LARGE DRUMHEAD CABBAGE.

I wish to get some information through the *Farmer*, as to how I shall manage towards raising large Drumhead cabbages? For the past two years I have attempted to raise a large quantity of cabbages—especially for winter use. Our market requires a large and sound cabbage, but those I have raised did not head so well as many I have seen in Boston market, which are brought from Marblehead or from that vicinity. Our soil here is dark loam with a clay subsoil—naturally a very strong soil.

I would like some information as to the best method of preparing the land, the kind of manure that is best, what kind of seed, and whether it is best to use plants or plant the seed? I hope some of the readers of the *Farmer* will give me the necessary information, and oblige

Dover, N. H., 1860. AN OLD SUBSCRIBER.

##### FOWLS PLUCKING EACH OTHER.

I wish to inquire if you, or any of your readers, can give a reason for hens plucking feathers from each other and eating them? I saw some half dozen hens a short time since stripped nearly naked by their companions; the hens have been changed several times, but when they come on that particular farm, they are at once stripped. If you, or any of your readers, will inform me what causes this, and how it can be prevented, you will oblige

Hawley, Mass., 1860.

A READER.

REMARKS.—We have noticed this among particular fowls, but never knew it to extend itself through the whole yard. What the special cause, or remedy is, we are not able to say.

##### "FATAL DISEASE AMONG CATTLE."

In a recent number of the *Farmer* I noticed a communication under this head, stating the loss to Winthrop W. Chenery, Esq., of many fine cattle within the past six months, by inflammation of the lungs. It said, "the last cow that died was the largest animal in the United State, weighing 3,260 lbs." Our friends here doubt this claimed weight, and our oldest inhabitants say "it 'aint possible." May I ask if there is not some mistake in the figures? A SUBSCRIBER.

Pepperell, Mass., Feb. 15, 1860.

REMARKS.—All we know of the matter is the *Boston Evening Transcript*, good authority, states that at five years old she was "weighed at Brighton, and weighed 3,260 lbs." Dr. DADD, on Diseases of Cattle, page 394, says the same.

##### PEARS FOR ORCHARD CULTURE.

I wish to learn the best variety of pears for general orchard culture adapted to the western section of Worcester county, and what varieties and proportions in a lot of fifty trees or upwards? I wish to be informed by practical fruit-growers.

Can any person explain through the *Farmer* the cause of apple trees blossoming three or four times in a season, as I have two trees of the August Sweeting which have blossomed four times in 1858, and three times in 1859.

OBSERVER ON THE FARM.

Oakham, Feb. 15, 1860.

##### CLUB-FOOTED CABBAGES.

I noticed in the last *Farmer* an article in regard to club-footed cabbages. My opinion has led me to the conclusion that a piece of ground used a number of years will cause cabbages to be club-footed, whether the land is moist or dry; but by the use of salt spread on before and after the cabbages are set out, it will prevent it. I have tried this way, and am satisfied that the use of salt is a sure remedy. They always do the best by using salt, if there is no danger of the club-foot.

R. WASHBURN.

East Freedom, 1860.

##### CURE FOR GARGET.

While the cows are dry in the winter, give them a table spoonful of sulphur in salt three or four times. I have found that some cows will not eat it in salt, so I generally give it in meal. I have never known it to fail.

W. I. SIMONDS.

Roxbury, Feb., 1860.

##### CURE FOR SCRATCHES.

Take one quart of chamber lye, and one-half pint of soft soap; mix them well together, and apply the mixture to the sore, using a corn cob to apply it. It must be applied once in three days.

Andover, 1860.

A SUBSCRIBER.

##### A FINE SPANISH MERINO LAMB.

Mr. Henry W. Hammond, of Middlebury, Vt., sold a Spanish Merino buck lamb, 11 months old, to Mr. McFarland, of Washington, Pa., for \$600.

Middlebury, Vt., Feb., 1860.

W. C. H.

*For the New England Farmer.*

### FARM FENCES.

Until the farmers of this country choose to adopt the system that prevailed in the early ages of the world, upon the plains of Judea, "where shepherds watched their flocks by night," fences will be considered a thing of necessity. Their existence in some form, all over the country, and the legislative enactments of the several States in regard to them, confirm and establish the fact that they are so considered. The safety of our flocks and herds, the protection of our orchards, of our door-yards and fields of waving grain, and of our cemeteries, and in some cases, even our forests, cannot be accomplished without them.

They are not only of absolute necessity, but of almost incalculable cost. A distinguished writer upon national wealth says: "Strange as it may seem, the greatest investment in this country, the most costly production of human industry, are the common fences which enclose and divide the fields. No man dreams that when compared to these unpretending monuments of human art, our cities and our towns, with all their wealth, are left far behind." A few years since, Mr. Biddle, in an address before an agricultural society, stated that the cost of the fences of Pennsylvania amounted to \$100,000,000, and their annual expense, to \$10,000,000. During a discussion at the farmers' club of the American Institute, a few months since, it was also stated that the fences of New York cost \$67,000,000, allowing the farms to be divided into fields of 20 acres each; a much greater area than the fields of New England farms contain. Add to this their cost in 30 more States, and we shall have an amount almost beyond belief. They have not only cost millions upon millions of dollars, but, as a general thing all over the country, they are poor and wretched in the extreme; literally "a disgrace to civilization and the age."

Nothing that pertains to the farm has been so much neglected, and in no one thing is there room for so much improvement as in the construction of fences. Broken down stone walls, with scarcely "one stone left upon another," tottering, dilapidated posts and board fences, with the posts tipping hither and thither, the sport of winds and unruly cattle, meet the eye almost wherever we go. I am aware that it is an easier matter to write them down than to *right* them up; but if anything can be done to call the attention of that large class of intelligent men to the subject who read the *Farmer*, much, in the way of improvement, may be expected. Any improvement in this matter would not only be of great individual advantage, but a public and national benefit. Thousands of our young men, sons of farmers, disheartened and discouraged by the sight of rickety fences, and the labor of perpetual repairs, are driven from the farms to California, to Pike's Peak, or, perhaps, in some cases, worse still for the community, into the professions.

It may be said that poor fences not only cause great destruction of property by unruly cattle, but are the cause of more hard feelings between neighbors, more trouble, anxiety, curses, imprecations and vexatious lawsuits, than all else connected with the farm beside.

What can add more to the appearance of a beau-

tiful field waving with rich harvests, than a neat, straight, substantial and durable fence? Well-arranged and tasteful buildings, with such a fence by the road-side, ornamented with rows of the sugar maple, with the birds of spring singing in their branches, would make many a dweller in the cities sigh for a country home, and many a farmer happier where he is.

Of the kinds of fences in general use, and considered by farmers the best, are post and rail, or post and board fences, stone wall, the Virginia fence, and hedge, or live fences. These are considered the best, and in the end more economical than those of a more frail and perishable character. Posts of chestnut or cedar in some soils are found to be durable, but in sandy soils soon decay, and on clayey, heavy soils are speedily thrown out of the ground by the action of the frost. In soils of this description they soon manifest an inclination "to rise in the world," and require great trouble and expense to keep them down.

Stone wall fences, from time immemorial, have been considered the very best, to question which, even now, might subject one to "sharper strikes" and severer criticisms, than have beset our doubting friend, Mr. Pinkham.

In some situations, and on some soils, when of moderate dimensions, this is unquestionably a good fence; but it is often otherwise. All will admit that is an expensive one to build. Other objections are, it requires something more than the wall to stop sheep; it takes up a great deal of land, and it is the poorest of all fences except stone post fence upon heaving soils. I have seen a wall which cost not less than \$1.50 per rod, so thrown out of shape by the frosts of a single winter, that some parts of it required to be rebuilt to make it a good fence. Farmers say we build our wall fences broad and high, to get rid of the stone. But when you divide your cultivated lands into small and inconvenient fields, and inclose them with wide wall fences, are you rid of the rocks any more than you would be were they piled in the centre of those fields? Inclose an acre of ground with a four foot wall, and see how much there is left for the sun to shine upon.

Next comes the Virginia fence. Admirers of the "wavy line" for a farm fence, can say in truth that this fence will stand on heaving ground; and I am almost willing to admit that it may be sometimes better to *stand very crooked* than not to stand at all! Upon the thousands of acres of very valuable clayey soils, this fence alone, except one not much in use, is found to keep its position, while the frost keeps up a sort of "irrepressible conflict" with other fences which soon ruins them. My objections to this fence are the great amount of material it takes to build it, and the great breadth of land it puts beyond the reach of the plow, the harrow and the mowing machine. It usually takes about double the lumber for a length of it, and one-third more lengths than a straight fence of posts and rails, and upon both sides of it about three-quarters of a rod of land in width, which no farmer can well spare from his cultivated fields.

Live fences, or hedges, require much care in rearing them, and also take up much land.

These are some of the objections to the fences now in use. The question arises, can we have better ones, and how shall it be done? Would

it not be well for State Agricultural Societies to offer liberal premiums, (open to citizens of other States,) for specimens of the best kinds of new fences to be erected upon their fair grounds? Would not this stimulate our mechanics and farmers to make as much improvement in this matter, as has been made within a short time, in our agricultural implements, in the breeds of our cattle, or the productions of the soil?

C. B. SMITH.

*Haverhill, N. H., Feb. 21, 1860.*

**REMARKS.**—Our correspondent has our thanks for calling attention to this very important subject. It is evident that he has given it thought, and we trust he will follow this communication with suggestions as to the best size of fields on farms of fifty, and those of one hundred or more acres, and also show the extent of land occupied, per rod, by walls of different widths, supposing they were brought into a square. The whole subject needs more attention than has yet been given it.

*For the New England Farmer.*

#### PRODUCTION AND SALE OF MILK.

**MR. EDITOR:**—I have a word to say about the milk business, and the manner in which it is conducted at the present time. For the past two years, the trade has been much depressed, owing, (as is believed) to mismanagement. At times, milk is so short, the collectors are obliged to run around the adjoining towns, paying extra prices for it; and again so plenty, it cannot all be received, obliging many raisers to keep a part at home, or decrease, by withholding feed from the cow. The price paid to farmers has not been a living one, and therefore they were indifferent about keeping a uniform quantity. The law, as regards adulteration, is a dead letter, and plenty of milk in the cities is manufactured to order, as is reported from authority. Let the consumers know that they are buying a pure and unadulterated article, and nearly twice the amount would be used. The business of raising must be sustained by responsible people that will carry their quantity through May and July, those being the most difficult months in summer.

Farmers are willing to meet the retailers halfway. Give them a living price, say they, three cents per quart in summer, and four cents in winter, (or from October to April,) and the supply shall be regulated by the demand. It never can be managed in peace under the present system. Let them agree to keep up their quantity from April to October, or no sales. Plenty of men are now ready to make such contracts at a fair price, because they are satisfied that this is their only remedy. Is it right, and just, that the neighbor who takes no pains in keeping his quantity even, but makes it to suit his own convenience, (say an extra quantity in June, or in the height of feed,) should crowd those off the track that are disposed to do the right thing? Such is the case in this town, and in others on the line of this railroad.

E. WOOD, JR.

*Concord, Mass., March 6, 1860.*

*For the New England Farmer.*

#### PROFIT OF AN OAT AND FLAX CROP.

As an offset to Mr. Pinkham's unprofitable farming, I will give a little of my experience in that line, with rather a different result from his corn experiment. I raised 11 acres of oats, of which the following is an accurate account, (omitting dates:)

OAT CROP—11 ACRES.	Da.
To 1 man and team, 7½ days' plowing, at \$3.....	\$22.50
To 33 bushels of seed, at 56 cents.....	18.41
To 1 man, 1 day sowing.....	1.00
To 1 man and team, harrowing 2½ days, at \$3.....	7.50
To 600 lbs. plaster, \$1.80, and sowing the same, ½ day.....	2.55
To 1 man, cradling 3 days, at \$1.50.....	4.50
To 3 men, raking and binding 1½ day, at \$1.50.....	6.62
To 2 men and team drawing in the barn, 1 day.....	6.00
To threshing and cleaning 517 bush. of oats, at 6¢ 7⁄8 bush.....	31.02
To marketing.....	2.00
To interest, taxes, rents of buildings, wear and tear of tools, &c.....	44.00
Making the total cost of 11 acres of oats.....	\$144.10

OAT CROP—11 ACRES.	Ca.
By 517 bushels of oats, at 45 cents.....	\$232.55
By straw, worth \$2.50 per acre for fodder.....	27.50
Total.....	260.15
From which deduct.....	144.10
Which leaves.....	\$116.05

as clear profit on 11 acres, and \$10.55 profit on the acre, which is a trifle over 21 per cent. on the capital invested in the land, allowing it to be worth \$50 per acre. I charge nothing to this crop for manure, as there was none put on to that or the preceding one.

The crop that pays the best with farmers in this section the present year is flax, which is a better crop than for several years past, and my own was the best crop I ever raised, but some of my neighbors have beat me considerable this year.

I stated in a former article that my profits on flax would be about \$23 per acre, in which I was mistaken, as I had not footed up my account, only merely run it over at that time, and a mistake in the figures when rectified, made a great difference with the result, greatly to the disadvantage of the theory of those who think farming an up-hill business.

FLAX FIELD—3 ACRES.	Da.
To 1 man and team plowing 2 days, \$3.....	\$6.00
To 1 man and team harrowing 1 day.....	3.00
To 3 bushels seed, \$1.50 per bushel, and sowing the same, ½ day.....	5.00
To 3 bushels ashes, 3 hundred of plaster, and sowing.....	1.87
To pulling at \$6 per acre.....	18.00
To whipping of seed, 2 men with 1 horse power and rollers 1 day.....	4.00
To spreading, 1 man, 3 days.....	3.00
To turning, 1 man, 1 day.....	1.00
To taking up and binding, 2 men, 1 day.....	2.00
To drawing to mill, 2 men and team ½ day.....	1.50
To dressing 1236 lbs. flax at 2½¢ per lb.....	30.90
To cleaning and marketing 36 bushels of seed, 2 men 1 day.....	2.50
To interest, taxes, rents, &c.....	12.00
Total cost.....	\$90.77

FLAX FIELD—3 ACRES.	Ca.
By 1236 lbs. flax, at 14¢ per lb.....	\$173.04
By 36 bushels seed, at \$1.87½.....	49.50
Total receipts.....	\$222.54
Deduct.....	90.77
Balance.....	\$131.77

Thus it will be seen that I have made a profit of \$43.92 on the acre, which is only a trifle short of 100 per cent. on the money invested, besides allowing a living price for my labor.

*Oak Hill, N. Y.*

INVESTIGATOR.

#### FOUR MORE OF THE GRASSES.

In accordance with an intention expressed in our last number, we now present the reader with engravings and brief descriptions of four more of the grasses that may be profitably cultivated on our New England farms, and three of which are already quite common. The cuts and descriptions we are permitted to use by Mr. Secretary FLINT, as they were given in his recent work on "*Grasses and Forage Plants.*"

If these illustrations are preserved, they will enable those who are not acquainted with the various grasses, to determine the names of some, perhaps, already growing in their fields.

#### THE MEADOW FESCUE GRASS.

This is an excellent pasture grass forming a very considerable portion of the turf of old pastures and fields, and is more extensively propagated and diffused by the fact that it ripens its seed before most other grasses are cut, and sheds them to spring up and cover the ground. Its long and tender leaves are much relished by cattle. It is never or rarely sown in this country, notwithstanding its great and acknowledged value as a pasture grass. If sown at all, it should be in mixture with other grasses, as orchard grass, rye grass, or common spear grass. It is of much greater value at the time of flowering than when the seed is ripe. It is said to lose a little over fifty per cent. of its weight in drying for hay.



MEADOW FOXTAIL.

This is a valuable grass for pastures, on account of its early and rapid growth, and of its being greatly relished by stock of all kinds. The stems and leaves are too few and light to make



Meadow Foxtail.

Timothy, or Herds-Grass.

it so desirable as a field crop. It thrives best on a rich, moist, strong soil, and the quantity of its nutritive matter when raised on such soils is considerably greater than on sandy soils. As a pasture grass, its luxuriant aftermath, being in value nearly one-fourth greater than its first spring growth, recommends it still more highly. In this respect it is superior to Timothy, the aftermath of which is generally but slight. For lands designed to be laid down to permanent pasture, it will make a prominent part of the seed. Where it occurs in fields, it loses largely its nutritive value if cut in the blossom. It does not acquire its full perfection and hold of the soil until three or four years after being sown. The aftermath exceeds the flowering crop in quantity as well as in nutritive matter. The grass loses seventy per cent. of its weight in drying, and the hay contains about sixty-seven hundredths per cent. of nitrogen.

The seed of meadow fox-tail is covered with the husks of the flower, soft and woolly, while the larger valve is furnished with an awn. There are



five pounds of seed in a bushel, and 76,000 seeds in an ounce.

GREEN MEADOW GRASS, JUNE GRASS, COMMON SPEAR GRASS, KENTUCKY BLUE GRASS.



This is an early grass, very common on the soils of New England in pastures and fields, constituting a considerable portion of the turf. It varies very much in size and appearance, according to the soil on which it grows. In Kentucky it is universally known as Blue grass, and elsewhere frequently called Kentucky Blue grass, and still more frequently, June grass. It comes into the soil in some parts of the country when left to itself, and grows luxuriantly on soils best suited to it, and is relished by all cattle. Its creeping root is said by some to impoverish the soil. Wherever it is intended for hay it is cut at the time of flowering, as if the seed is allowed to ripen, more than a fourth part of the crop is lost. In its earliness, it is equalled by some of the other grasses, and in its nutritive constituents by several. After being cut in summer it starts up slowly. It grows well in rather a dry soil, but will grow on a variety of

soils, from the driest knolls to a wet meadow. It does not withstand our severe droughts as well as some other grasses.

#### TIMOTHY, OR HERDS-GRASS.

As a crop to cut for hay it is probably unsurpassed by any other grass now cultivated. Although somewhat coarse and hard, especially if allowed to ripen its seed, yet if cut in the blossom, or directly after, it is greatly relished by all kinds of stock, and especially so by horses, while it possesses a large percentage of nutritive matter in comparison with other agricultural grasses. It is often sown with clover, but the best practical farmers are beginning to discontinue this practice, on account of the different times of blossoming of the two crops. Timothy being invariably later than clover, the former must be cut too green, before blossoming, when the loss is great by shrinkage, and when the nutritive matter is considerably less than at a little later period, or the clover must stand too long, when there is an equally serious loss of nutritive matter in that. It thrives best on moist, peaty or loamy soils of medium tenacity, and is not suited to sandy or light gravelly lands; for though on such soils, by great care, it can be made to grow and produce fair crops, some other grasses are better suited to them, and more profitable. It grows very readily and yields very large crops on favorable soils. I have known instances where its yield was four tons to the acre of the best quality of hay, the Timothy constituting the bulk of the grass. It is cultivated with ease, and yields a large quantity of seed to the acre, varying from ten to thirty bushels on rich soils.

*For the New England Farmer.*

#### PIPE FOR CONDUCTING WATER.

MR. EDITOR:—In the *Farmer* of January 28th, "A Reader" asks some questions with regard to the best pipe for conveying hard water from a well twenty feet deep to a pump about one hundred feet distant on a level. He also states that were the water soft he should put in lead pipe.

As I have seen no proper reply to this communication in your columns, I will venture a few words, hoping they may be of use to your correspondent, and prevent him or others being led astray by his suppositions with regard to the dangerous effects of soft water on lead.

"A Reader" is mistaken in supposing that soft water is not injured by lead pipe through which it passes. The fact is quite the contrary. If rain water be kept in lead cisterns, or those lined with that metal, a white hydrated oxide of lead is formed at the surface of the water, where both air and water have access to the metal. This oxide is rapidly formed, it is soluble in the water, and exceedingly poisonous. The same effect takes place in a lead pipe conveying soft water, as there is always more or less air in the pipe.

But if the water contain even a small quantity of carbonic acid, the oxide above mentioned will be converted, as soon as formed, into carbonate of lead, which is insoluble in water, and combines with some other of the constituents of hard water to form a coating in the inside of the pipe, which

arrests the corrosion of the metal and the consequent contamination of the water.

Almost all spring and well water contains sufficient carbonic acid to render lead pipe free from deleterious effects upon the health of men or animals. Thus we see that the mere fact of water being hard must not be taken as evidence of its liability to injury by lead.

Presuming that the "twenty feet deep," means from surface of ground to surfaces of water, the height of the pump must be added; making, say, twenty-five feet rise and one hundred feet horizontal, the distance that it is required to carry the water. To insure the pump being able to draw water this distance, it is necessary that the pipe should be air-tight, which throws glass or wood entirely out of the question. Glass may be laid tight, but it will not remain so. The only desirable materials appear to be either lead or iron. A gutta-percha pipe would be admirable, if sufficiently rigid to prevent its being "collapsed" or crushed together, so as to obstruct the passage of the water.

Were the case my own, if any doubt existed in my mind as to the quality of the water, I would use iron, which is comparatively cheap, durable, and perfectly harmless.

THEO. G. ELLIS, *Civil Engineer.*

#### APRIL WORK.

The sun has come again with power, the days are longer, birds sing, buds swell, the dancing waters are musical in the valleys, while peeping flowers and springing grass invite us forth to breathe the sweet airs of the new-born year.

Thanks, for this change of the seasons! Each new *April* is a new era in life to the farmer. His general calculations have been made, to be sure; but they are not mathematical, to be worked up to like so many arbitrary rules. The farmer cannot do this. When the ground is laid bare before him, and the influences of the winter are revealed, he frequently finds it necessary to change the plans he had already decided upon. So that *April* often demands the principal engineering of the year.

Every implement and machine on the farm is in order,—is it? The cattle are lusty and strong; the seeds of every kind are selected and in their appropriate places, ready to be committed to the earth; the manures are in symmetrical heaps on the field, protected with a covering of muck or loam; refreshing rains have fallen, rich in ammonia, to fertilize the waiting soil, while the superincumbent atmosphere is ever ready to impart its oxygen, carbonic acid, nitrogen and other agents, whenever the soil is cooler than the air above it. So nature has made all fitting preparation on her part, all in good season for man to step forward to "dress the earth and keep it," for his pleasure and profit.

PLOWING is one of the most important operations now,—but where the land is wet and sticky,

even this prime work had better be delayed until the water has drained away, and the soil become aired and dried, so that when a furrow is turned a portion of it will fall to pieces. If it falls over flat, cold and heavy, it will remain a clog and incumbrance through the entire season, if at all of a clayey nature. Better to wait a little, and allow nature to perform her work in her own way. On thorough drained land there will be no difficulty in plowing as early as you desire.

POTATOES should be planted early, so as to come to an early market.

THE GARDEN, by all means, should have attention now. Make a small patch of soil, *very rich*,—even if you are obliged to rob the corn or grain field a little,—work it deep and thoroughly, and then sow at proper times, all the seeds of the common vegetables,—such as beets, carrots, turnips, cabbage, onion, tomato, beans, peas, summer squash, egg-plant, parsnip, melon, cucumber, &c., &c. If these are well tended, they will pay four times the profit that any hay or grain field will.

A bed of *Asparagus* is essential—no farmer should do without it. Add, also, a few hills of RHUBARB.

Be up in the morning, singing with the lark; keep all your work *before* you; never say, "*that ought to have been done yesterday*;" give prompt and kind attention to the stock, as they will catch and appreciate your sympathies, and abundantly repay them; do not allow any creature to break through a fence to begin the season with; keep cattle off the mowing land, and from browsing the young fruit trees, and start every thing decently and in order, and you will realize days of peace and nights of calm repose.

TRANSACTIONS OF THE MIDDLESEX AGRICULTURAL SOCIETY, FOR THE YEAR 1859.—In this pamphlet of forty pages, we find the names of the officers elected at the annual meeting in September last, with the names of the members of the society; an account of the cattle show and exhibition at Concord, last fall, with a list of the premiums awarded; and the address delivered by the Rev. Rufus P. Stebbins, D. D., of Woburn. Mr. Stebbins has spent several years in the most fertile section of the West, and on his return to his native State, speaks words of encouragement and cheer to the farmers of "sterile" New England, that should be heard beyond the limits of Middlesex county. The matter and the manner of this publication are alike creditable to the society and its managers.

☞ If you invest money in tools, and then leave them exposed to the weather, it is the same as lending money to a spendthrift without security—a dead loss.



### LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The eighth meeting of the session of the *Legislative Agricultural Society* was held in the Representatives' Hall at the State House, on Tuesday evening last. Hon. N. EDDY, of Oxford, occupied the chair, the subject for discussion being, "What are the best measures that our Agricultural Societies can adopt to satisfy the public conclusively which are the most profitable breeds of cattle for the farmers of New England to keep on their farms; 1, for the dairy; 2, for the yoke; 3, for the shambles?"

The chairman said he occupied his position unexpectedly, and was not conversant with the subject for discussion practically, yet he considered it one of the utmost importance to agriculturists. He thought that some breeds of cattle were good for dairy purposes that were not good for the others named, and thus it would be necessary to discuss the subject in this manner. The Ayrshires he considered, as did many others, as among the most profitable for dairy purposes, but that to put them into beef they paid but a small sum for the cost of feeding. Many considered the Durham breed as good, and he thought that where they had rich, heavy feed, as was got in the Connecticut Valley and the more fertile portions of our State, they might do well; yet with the feed to be had in three-fourths of our State, he felt satisfied they were not the best breed for farmers to raise. In his opinion, a cross between the Devon and Native would be found the best breed for the three purposes named in the question for discussion, over three-quarters of the territory in New England, as they were good milkers, hardy for the yoke, and, when well fattened, good for the shambles. He should recommend the improved Devon breed, or, as an equivalent, the best native breed, as including all the qualifications desired.

Mr. ASA SHELDON, of Wilmington, thought the subject one of the utmost importance, and said that he considered the milch cow of more importance than most people, but he would say that the majority of persons did not understand that milk, butter and cheese were not all a milch cow produced. After these, said he, we get a little pork, veal and skins, all made from the milk. There are 500 head of cattle butchered every day in Massachusetts, said the speaker, and the first \$3 in each of these is made from milk, thus giving a product of \$1500 a day from this source alone, and making it highly necessary that we should get the best cows. The State has been liberal to the various county societies, and the public, he thought, had a right to seek information from them, but the way they were going on he did not see that the people were likely to get it. Pre-

miums are offered for the various breeds of cattle separately, Herefords, Durhams, Ayrshires, Devons, &c., &c., and the same encouragement is given to the breeder of the poorest as to him who exhibits the best breed.

He thought the only true way was to let all compete together on equal terms for the premium, and let the best cow take the highest premium, and then we should know what breed was the best and most profitable to raise. He compared the present method of awarding premiums for cattle to that of giving premiums for mowing machines, allowing the maker of each kind of machine to be considered as a class by himself. He concluded his remarks by expressing a hope that a resolve would be passed that all breeds of cattle should compete together, and on their merits. Foreign breeds, said he, are kept better than Natives, and unless we let them compete together we shall never be able to decide which should have the preference.

Col. HEARD, of Wayland, differed from the previous speaker in the matter of separating the different breeds of cattle; he thought the great trouble among our farmers was, that they were too negligent in breeding stock—that when they get a good cow they don't pay the attention they should to the animal they select to raise by. If agricultural societies are going to ascertain which are the best breeds of cattle, they must be particular and keep them separate, and thus induce farmers to exercise care in getting the best animals from which to raise stock. He considered that there was nothing that kept our native stock down more than this negligence in selecting good blood. The Ayrshire and Alderney were considered the best cows for milk, and perhaps the latter for butter, and he considered this was entirely owing to keeping the blood pure, while if we could keep our own native stock up, we could, he felt assured, get them to be as profitable as the imported cattle. He spoke of the great necessity there was that agricultural societies should impress this matter of the selection of blood stock on farmers.

Mr. GALE, of Heath, said there was not this trouble in regard to the various kinds of cattle in Franklin county, as they had very few except of the Durham breed there. They found that the best and most profitable cattle they could keep were a grade from the Native to the Durham, as these were finely proportioned, good and hardy to work, kind and docile, and mature quickly, making good beef. As an idea of the size of the stock raised, he mentioned a pair of steers, owned by a neighbor of his, that were three years old this spring, which were called 3600 lbs. live weight. Most of the farmers in his section thought it decidedly better for their interest, not selling their

milk, but making butter and cheese, to cross the breed in the way mentioned, than to keep the imported breeds pure.

Hon. JOSIAH QUINCY, Jr., of Boston, said that at the great agricultural show at Paris, the greatest that ever took place in the world, the question was presented,—“what class of cattle were to be considered the very best, or the representative breed, for all purposes.” The committee to decide this question was equally composed of English and French, the chairman having the casting vote, being a Frenchman. The French insisted that all three of the points, milk, yoke and shambles, should be considered in the award, while the English did not look at it in that light. He believed the matter was decided that it was necessary to look at the requirements of the animal, and what you wanted it for, in awarding the palm of excellence. He spoke of the interest manifested at the Paris exhibition, and mentioned the fact of \$2500 being paid there for one cow. In a recent agricultural exhibition in Albany, Mr. Quincy said, he had seen what was said to be the best bull in England, the property of Col. Thorne, and for which he paid \$5000 there. This was a Short-horn; and there was a singular incident connected with his purchase which he related as follows: Some years ago, Mr. Thorne commissioned his agent in England to purchase for him the very best bull in the country, as also a cow. The agent paid \$5000 for the bull, and bought a cow which happened to be in calf. As she was near her time of calving he did not ship her until after the birth of the calf, and not desiring to send the weakly offspring, he shipped the cow alone, making a present of the calf to the man of whom he purchased the cow. In course of time the bull died, and Mr. Thorne announced the fact to his agent in England, at the same time commissioning him to buy another, also to be the best in the country. The agent went to work and selected an animal for which he paid, as before, \$5000, and which, on investigation of pedigree, proved to be the very calf he had given away at the time of his former purchase for Mr. Thorne.

In Kentucky, where they had abundance of feed, Cassius M. Clay considered the Short-horns the most profitable breed to raise for the shambles, but in our own State, Mr. Quincy thought they were not so favorably looked upon. He thought that the Alderneys and Ayrshires were well deserving the attention of our farmers as producing milk, butter and cheese, and a cross from these might be found to answer the other requirements named.

He thought our native breeds of cattle were a good deal like some of our native American citizens, if you looked back to the grandfather, and in some cases to the father, you would find they

came from “Ould Ireland.” A good deal, said he, depends on feeding a cow, in the profit you can derive from her, and the use you can put her to, and this is a matter of weighty importance. He closed by relating in an amusing manner the controversy at the Paris show in the matter of awarding the first premium on hogs, showing that this was given to the French, on the ground that their hogs were able to take care of themselves in a great measure, while the English had to be taken care of.

Mr. HOWARD, of Boston, said that at the Paris show the premium for the best beef was awarded to the Scotch cattle, and the Durham Short-horn came the seventh in the award. He thought that if we looked at the comparative estimate in which the Short-horn is held in England, we should find it was much over-estimated here, as it was only in the richest parts of England they were kept. What is known here as the Herdbook family of Short-horns are not kept in England to any extent, and he had never seen one there. At the London show, the year before last, there were 150 cattle shown for dairy purposes, and last year a less number. Among these there were no Short-horns, no Devons, no Herefords, and last year only two of the latter. The contest was between grade Short-horns, grade Herefords, Jerseys and Welch. The South Devon breed, said he, is kept somewhat for dairy purposes, and on fair pasturage it is said to fat easy and to make good beef, and is considered as among the best for the shambles. Scotch is also considered good, and Herefords sell at about the same price. The Smithfield Club was formed, he said, about the commencement of the present century, whose object was to ascertain what breeds of cattle were the best, and could be raised at the least expense, and their plan of ascertaining this had been changed about five years since, when they concluded to make two sweepstakes, the prizes to be a valuable gold medal in each—one for cows and heifers, and the other for oxen and steers. In addition to this they gave prizes to the classes separately. This he thought was a good plan, and would work well with us, and he hoped to see it adopted.

Mr. FLINT, Secretary of the Board of Agriculture, said, in reply to the remarks of Mr. Sheldon, that at the last State Fair, held in Boston, separate premiums were offered for all breeds, including natives, also premiums for the best cows for milk purposes. He was not prepared to make any lengthy remarks on the question under discussion, but he saw a gentleman from North Brookfield present, and he thought it would interest the meeting to hear a statement from him in relation to the disease at present prevailing among cattle in his neighborhood.

Hon. FREEMAN WALKER, of North Brookfield,

then gave an account of the disease as it appeared among the cattle of Mr. Curtis Stoddard, of North Brookfield, from a calf he had purchased from Mr. W. W. Chenery, of Belmont, to its spread to New Braintree, and the death of some 25 head of cattle, and more being sick.

He said that great excitement existed in these towns and those surrounding, in consequence of the apparently infectious nature of the disease, and he urged immediate action to check it. He thought that the only means would be to destroy the cattle affected, and that this should be done at the expense of the State, as, if done by the towns, he was fearful the authorities might pursue a temporizing course. Money, he urged, should not be an object when there is a prospect of the disease, spreading over the whole State. He suggested that the Board of Agriculture might have charge of the matter, and take action as soon as possible. He hoped that economy in this case would not be allowed to cripple efficient legislation.

Dr. LORING, of Salem, spoke briefly of the disease now prevalent among cattle, and said that it was either in the pleura and stomach or in one or the other, and he did not see how it was to be decided by discussion. In discussing the question of the evening, we ought to consider what are the most important kinds of cattle to be introduced. Our necessity, said he, is for dairy purposes, and we must look at it in this light. He said he had recently visited a farm in Barre, a cheese-making farm, where 22 cows were kept, and he had never seen 22 cows on any farm in Massachusetts look so well. They were Short-horns or grades, and the owner said they did very well indeed. Before I left, said the speaker, he asked me if I could furnish him with a good Ayrshire bull, and on my asking him why he wanted it, he said his cows were too large for his dairy. Mr. Loring spoke at length of the good dairy qualities of the Ayrshire cattle, and said they had been bred expressly for the dairy. In this part of the State, said he, we want cattle of a moderate size, cheaply kept, and that yield a great profit for the feed consumed, and he contended that the Ayrshire was without doubt the very best for this.

Mr. HOWARD and Mr. FLINT both spoke of the importance of vigorous measures being taken to stop the disease among cattle, as now it is known to be confined to a small arena, while if prompt action is not had, it would be difficult to tell the results.

It was announced, that the subject for discussion, at the next meeting, on Monday evening, would be, "What are the most profitable crops farmers can raise on Massachusetts farms?"

PET BIRDS.—Caged birds are the source of much pleasure, and while they give great happi-

ness if they are kept in good healthy condition, seem to enjoy life nearly, if not quite as well, as their mates in the bush or the wildwood—especially if, either from lack of memory, or from blissful ignorance, the caged birds do not know what pleasure they lose. "Where ignorance is bliss, 'tis folly to be wise." One of the great drawbacks to the happiness of birds, and to the pleasure of keeping them, is lice, and having recently learned of a safe and sure way of removing them, we give it to our readers. The *Michigan Farmer* says:

"Lay a piece of Canton or cotton flannel over the cage at night, several nights in succession, taking it off at daylight. Multitudes of the lice will be found upon it, which are easily killed. After a few days all will be removed. A case in which this was very successful, has just been brought to our notice; from a pair of bob-o-links hundreds of these parasites were removed in this way."

For the New England Farmer.

#### SELLING MILK COMPARED WITH MAKING BUTTER.

MR. BROWN:—As I am among the number of those who are not perfectly assured that they are getting rich by selling milk at the present prices paid to the farmer in Concord, I am naturally inclined to find some more profitable way to dispose of it, if possible. For the above reason, after reading Gov. Boutwell's statement in the *Farmer* of the 4th inst., and without any intention of sending them to you for publication, I was led to make some estimate on the subject, adapted to this locality, and for the whole year, instead of for the five months best adapted to butter-making. In the first place, I suppose the cans mentioned in the Governor's statement to be what we call eight-quart cans, as they contain about 2 pounds more milk than the seven-quart cans which I use.

The average price per can, of that size, for the last and present six months, in this place, is twenty-four cents, at the door. Now, I take a dairy which furnishes 8 cans of milk per day, or 2920 cans per year, from which I make the following calculation, viz.:

To 2920 cans milk, at 24 cents.....	Dr.	\$700.80
To making 2336 lbs. butter, at 5½ cents.....		128.48—\$829.28
By 2336 lbs. butter, at 24 cts. at the door.....	Cr.	\$560.64
By skim milk from 2920 cans, at 8 cents.....		233.60—\$794.24
Balance against butter.....		\$35.04

It will be seen by the above, that I allow one and one-fourth cans of milk for one pound of butter; the Governor's average is one and twenty-seven-one hundredths.

Now let us carry the matter a little farther; I have allowed eight cents per can for the skim milk; now, as I have no market here for that article, except in the hog's trough, let us see if those customers will pay us the price that we have allowed the butter for it. In the first place, let me say, that I think no farmer will disagree with me in the statement, that a shoat taken at the weight of one hundred pounds, and kept one year, on an average daily allowance of one can of skim-milk and two quarts of corn meal, cannot be made to weigh more than four hundred pounds, and that ten loads of manure, worth one dollar, per load, is a

liberal allowance for one hog; and from these assumed facts, I make one more calculation, as follows, viz.:

	Dr.
To 8 shoats, weighing 100 lbs. each, 800 lbs., at 6c.....	\$48.00
To 2320 cans skim-milk, at 8c.....	233.60
To 16 quarts meal per day, 182½ bushels, at \$1.....	182.50
To carting loam, muck, &c.....	10.00
	\$474.10
	Cr.
By 3200 pounds pork, at 8 cents.....	\$256.00
By 80 loads manure, at \$1.....	80.00
	\$336.00
Balance against hogs.....	\$138.10
To which add balance against butter as above.....	\$35.04
Making the whole balance against butter-making.....	\$173.14

From this I conclude that hogs will not pay 8 cents per can for skim-milk, and that however unprofitable milk-selling may be, butter-making must be more so. If any of your correspondents can show facts, or figures, to carry the balance to the other side of the account, no one will be more pleased to see them than a

MILK-RAISER.

Concord, Mass., Feb. 11th, 1860.

#### FATAL DISEASE AMONG CATTLE.

The farmers of our Commonwealth, and, indeed, of New England, will learn with regret that a disease which threatens to prove as extensive and fatal as the cattle murrain of Europe, if, indeed, it be not the same malady, has made its appearance among the stock in North Brookfield and vicinity. The *Journal* gives the following account of its origin and spread, which is corroborated from other sources:

The disease was introduced last summer by a calf of foreign breed, brought from the town of Belmont. It fixes itself upon the lungs, and produces a violent cough, and the lungs are finally destroyed. Some of the cattle attacked with it linger along for weeks; others die in a few days after the attack. None have recovered.

Letters from farmers in North Brookfield say that the disease is apparently making a clean sweep through the herds in that section, where it has got a foothold. One man has lost ten head of cattle, and has as many more sick. Another man has lost seven, and the best of his herd are sick. In North Brookfield and New Braintree, the disease is in five or six herds.

One gentleman in North Brookfield writes to a member of the Legislature that the disease is of the most alarming character. The calf from Belmont was carried to Leonard Stoddard. His cattle began to be taken sick, and one after another died. He sold an animal to Mr. Olmstead, and the stock of the latter are all dying. Mr. Stoddard also sold a cow to Mr. Huntington, who has since lost seven cows, and has ten more sick; so of another herd in New Braintree, where some of Mr. Stoddard's stock were sent. If allowed to spread, continues the writer, the disease will cause general destruction. It is a foreign disease, and the same that prevails in Holland at this time. It seems almost certainly fatal.

Something effective should be done, otherwise it will spread all over the State. Oxen infected with it are now worked in the streets. This should be stopped. The selectmen ought to be authorized to forbid any person who has any imported stock from taking it out of his own premises, and to cause the immediate destruction of all sickly animals. A petition to the Legislature is now in circulation among the farmers in the western part of the State, or about to be put in circulation, to effect the purpose above expressed.

We learn that the disease has entered the herd of the gentleman in Belmont who sold the calf to Mr. Stoddard, and that his cattle are nearly all exterminated.

Persons whose cattle are infected are making anxious inquiries of the Secretary of the Board of Agriculture and others, with a view of ascertaining some remedy for a disease which threatens to depopulate the farm-yards of the Commonwealth.

It is a matter of the utmost importance that some preventive should be adopted, and seasonably. Notwithstanding veterinary authorities prescribe remedies—among which are the separation of the diseased animals from their companions, light and nutritious diet, relief of urgent symptoms, &c.—we hold that the only *sure and effectual safeguard* is the immediate slaughter of every animal which is infected. This course will entail considerable loss upon farmers, but we should advocate it, even if the State were to be called on to make good the loss; for a comparatively small expenditure, now, may not only prevent the spread of a loathsome and fatal disease, but also protect people from the possible evils of purchasing the carcasses of the affected animals for food.

The contagious or infectious character of the disease would seem to be sufficiently established. *Morton's Cyclopædia of Agriculture*, an English work, states that

The term (pleuro-pneumonia) denotes inflammation not only of the substance of the lungs but also of the membrane which covers them, as well as that which lines the cavity of the chest. Post mortem examinations lead to the conclusion that the disease is of an inflammatory character. With regard to its infectious character a doubt can scarcely be entertained. It would seem to be evident that the disease is produced by an animal poison floating in the atmosphere, and in most cases proceeding from the respiratory surfaces of diseased animals.

This authority, under the head of "Treatment," suggests that in case a herd is large, and only one or two animals appear to be affected, it would be most prudent to slaughter them all at once and sell the beef of the healthy ones. We understand that a bill to this effect has been presented to the Legislature. If not, we hope that no time will be lost in passing a bill that shall embrace the above provision, and also forbid the driving of cattle from the infected region to market, until the disease shall have completely disappeared.

## WILL WOOD OF THE FARM.

BY B. W. FRANK.

The bright Spring days have come, Will Wood,  
The cold, bleak weather is past,—  
The husbandman speeds his plow once more,  
The Frost King's gone at last,  
The fields have cast their mantle of white,  
And are donning their carpet of green,  
The cattle e'en now, on the hill-side graze,  
And the green bursting buds are seen.

My mind's eye wanders to the farm, Will Wood,  
The farm with its meadows and trees,—  
Where in years gone by—bright boyhood's years—  
Our hearts were light as the breeze.  
The house by the road, where years it has stood,  
Unscathed by the hand of decay—  
The peach and the pear trees, 'neath whose shade,  
We went in the sunshine to play.

The hand that planted them is cold, Will Wood,  
And is laid 'neath the white marble stone;  
But the trees he left bright monuments stand,  
To tell of the patriarch gone.  
That old well-sweep you've taken away,  
And a "new-fangled" pump, in its stead,  
Brings to your hand the pure cooling draught  
From the well that our good sire made.

And don't you remember the oven, Will Wood,  
We built 'neath the buttonwood tree?  
And how in that oven the apples we baked,  
And none were so happy as we?  
A score of years have passed since then,  
But the oven remains there still,  
Though the soft, green moss now covers its sides,  
That oven close under the hill.

There is one gentle voice now hushed, Will Wood,  
That we all so delighted to hear;  
Her form lies cold in the embrace of death,  
That was wont the dwelling to cheer;  
But her memory lives in the hearts of those  
Who joyed in her presence then;  
She'll mingle no more with the scenes of earth,  
But anon we shall meet her again.

We're scattered all hither and yon, Will Wood,  
We ne'er again shall meet,  
Around the board in the old farm-house,  
With kindly words to greet;  
But our hearts cling fondly around that spot,  
Where we never knew aught of harm,  
And we joy to grasp thy hard, brown hand,  
Will Wood of the homestead farm.

*For the New England Farmer.*

## REARING AND FATTING GESE.

MR. EDITOR:—As I have been in the business of raising geese for some twelve years, I will try to answer that lady whom you referred to, and also others who have inquired of me by private letters. I must confine myself to my own stock, as I am not much acquainted with other breeds. Mine are the pure Bremen, imported by Mr. James Sisson, of Warren, R. I.; they are of pure white; my gander now weighs 25 pounds, my two geese are some lighter; they lay the first of March; from 8 to 12 days before they commence laying they will refuse their allowance of grain, then I prepare nests for them under cover, where it is warm, and at sufficient distances so that they cannot hear other goslings. I place a false egg made of chalk, say about 2 inches in diameter, in the nest, and if they will own these nests, they will cover the nest egg up. Remove their new-laid

eggs as soon as they are laid, so as to not let them chill—place them on the small end in a box with cotton wool, and keep them in a warm room until wanted. I don't allow the gander to go where the geese are sitting. They set from 28 to 30 days. As soon as I think there is a number out of the shell I put my hand under and remove all the shells, to give room for the rest. Do not be in a hurry about getting them out of the nest too soon—let nature have its way. Don't pick them out of the shell, except in some extreme case. Whenever you see the goslings crawling out from under the goose while setting, place a green sod snug to the goose; they will soon find it; then give them a little corn-meal wet up with sweet milk, if convenient, if not use water. Place a shallow dish of water near by, so that they can help themselves. Do not allow them to run out in the dew or in a storm while young. In about ten days they will take care of themselves by the aid of the goose. If there is no grass for them to feed on while very young, chop up some cabbage fine and mix it with their meal, for they must have something of that nature. Keep your goslings in separate flocks for two weeks before you turn them into one flock. Two geese to a gander is enough, but even mated is better still. You will get more goslings according to your stock. If you keep more than one gander, keep them separate with their mates while they are laying. It appears that water is their element, but they fat and grow faster away from streams and ponds, but they must have a supply of pure water to drink and to sport and play in. They must have a place to go under, even in a shower, if not they will be as wet as a hen. They can be fattened for market in about 60 days by giving them all they want to eat of corn and corn-meal, and a few pork scraps, chopped fine and soaked and mixed with their meal. About three weeks before dressing for market, shut them up in a yard allowing each goose six feet square so as to let them flap their wings and to stir round. Plucking geese while alive should be done twice a year; first, in the spring, when they shed their quills, then in the fall.

*South Hanson, 1860.*

SILAS DENHAM.

## LADIES' DEPARTMENT.

HOW TO MAKE GOOD COFFEE.—Although coffee is a beverage in daily use in almost every family, there are comparatively few who appear to know how to make a really good cup of it. Generally, the first thing Biddy does in the morning is to make the coffee, no matter if it is an hour before the other portion of the breakfast will be ready. During the whole of this time it is kept boiling furiously, and the house is filled with its fragrance. This fragrance is very agreeable, but, unfortunately, when you have it, you gratify your olfactories at the expense of your palate; for I am perfectly satisfied that this over-boiling produces that acrid bitter taste so often found in coffee. My plan is to leave the making of the coffee until the last moment. Having the boiling water ready, and my ground coffee properly mixed and cleared, I pour the boiling water over the coffee, and then allow it to boil one-half of a minute. Try it, if you doubt the correctness of my method.

### KITCHEN FURNITURE—SINK AND UTENSILS.

Never have dark furniture for a kitchen. It shows the dust much more than light, and requires double the care. Never have extra shelves, mantels, etc., pointed dark, if you can prevent it. If it is your misfortune to have dark paint and furniture, wipe it once in a few days with a damp dusting cloth, and have it varnished often.

Have your sink in a convenient place, but never under a window, if you can avoid it, as much work is caused by greasy dishwater spattering upon the window, as it necessarily must. Back of your sink nail up a piece of paper, pretty if you choose, and have it nicely varnished, and then you can, with a wet cloth, remove all the spots that would soon spoil the room-paper. If you are so fortunate as to have a sink-room, have it papered and then varnished well all over, as fly-tracks and every spot can be wiped off. The sink should be lined with zinc, nailed only around the edges, as nails upon the bottom rust and wear through, allowing water to run under the zinc, thereby causing the boards to rot.

Good zinc can be kept nice and bright, by scouring once in a week or two with sand, and rubbing all over once or twice a day with soft soap, scalding and wiping dry.

At one side have a shelf to keep your water-pail on, which always, day and night, keep covered; an uncovered water-pail is a slack thing. Nailed upon the back side of the sink, have a little box, perforated through the bottom, to keep hard soap in, and, if you have no better place, your Castile soap also, and a piece of pumice-stone, to remove stains from your hands. Your soft soap keep under the sink, which I take for granted is boarded up, with a door, where you put your pots and kettles, board to scour knives upon, sand, etc., and which place should be kept as neat as your sitting-room. Just over the sink have a narrow shelf, with holes through it, to set your common tumblers upon, when washed and rinsed, that they may drain and dry; thus saving the time and labor of wiping them all with a dry cloth.

At the other end of the sink have a narrow strip nailed up, to set your kettle-cricket on; of these, you should have two, one to set your kettles on, when washing and cleaning them, and which should be kept under the sink, in some odd nook; the other should be smaller, and only be used to set the tea kettle, etc., on when filling, and therefore must be kept handy and clean; so if you should be sick with the headache, pain in your side, or any little trifling thing, and should ask your kind husband to fill the tea-kettle, he would take the cricket down to set it on, instead of setting it in the sink—thus causing you more labor than he saves; which he would be sure to do, were the cricket under the sink, or so black and nasty, he could not touch it without soiling his hands.

And last but not least, have a light rack made, of strips of wood an inch wide, an eighth of an inch thick, and a foot long, nailed over one another, making your rack a foot square, with both sides alike, to put in your sink to turn dishes upon while washing; thus keeping them from touching the sink, which is liable to be greasy and dirty, and draining them so they will wipe easily.

You may think, fair reader, that it takes considerable to furnish a sink to suit my taste; but

every one of these things are around my sink, and not one would I dispense with, neither will you, after having once seen how convenient they are.—*SARAH B. SAWYER, in Ohio Cultivator.*

### DOMESTIC RECEIPTS.

**RICH RICE PUDDING.**—Pick and wash a quarter of a pound of rice; put it on in cold water, and let it boil five minutes, then strain the water off and put the rice on in as much new milk as it will require to boil it quite soft, with a good pinch of salt; stir it frequently to prevent it burning; when done, put it into a large basin to cool. Beat up six eggs, a pint of milk and sugar to your taste; it should be rather too sweet when you make it, as the sweetness goes off in the baking; add also five or six bitter almonds blanched and crushed, with plenty of lemon peel chopped very fine; mix all well together, then stir it into the rice, taking care to mix it thoroughly, so that there be no lumps. Butter your dish and pour in your mixture; then shred about two ounces of beef suet as finely as possible all over the top; grate over that half a nutmeg, and bake it half an hour in a moderate oven.

**POTTED BEEF.**—The coarser, tougher parts of beef, as the neck-piece, etc., which usually sell quite cheap, may, by a little cook-science, be made palatable and even delicious. We have tried the following and can recommend it. Boil the meat until tender, chop it fine, and pound it with a pestle until the fibres are well separated. Salt and pepper it to the taste, and add cloves, allspice, or cinnamon, as may be desirable, also a little sugar. The quantity depends upon the cook's palate. Pack it tightly in earthen jars or bowls, and pour over it a thin layer of melted butter. It will keep a long time. When cold, slice it very thin and eat cold with bread and butter. It makes a nice relish for lunch or tea.

**MINCE PIE WITHOUT MEAT.**—Chop three pounds of suet very fine, and three pounds of apples, (cored and pared,) wash and dry three pounds of currants, stone and chop one pound of jar raisins, beat and sift one pound of loaf sugar, cut twelve ounces of candied orange peel very fine, and six ounces of citron; mix all well together with a quarter of an ounce of nutmeg, half a quarter of an ounce of cinnamon, six or eight cloves, and half a pint of French brandy; cover it close, and keep it for use.

**FRUIT CAKE WITHOUT EGGS.**—One cup of molasses, one cup of brown sugar, one cup of butter, heat together sufficiently to melt the butter, two teaspoonfuls of cloves, two of cinnamon, one of nutmeg, one coffeecupful of raisins, (with or without currants,) citron; then add one teaspoonful of soda dissolved in hot water; one cup of sour milk or buttermilk, and one quart of flour; bake one hour.

**TO SAVE FROZEN HOUSE PLANTS.**—When plants are found to have been frozen during the night, they should not be removed to a warm place, but on the contrary, they should be dipped in cold water, and set in some cool place where they will not freeze, and also in the dark. They will then have a chance to recover, if not completely dead.





DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

#### CALENDAR FOR MAY.

"When brighter scenes and milder skies  
Proclaim the opening year,  
What various sounds of joy arise!  
What prospects bright appear!"



AY! Why did they name it MAY? Our Encyclopædia says: "As early as the Salic Laws, this month is called *Meo*. and it would appear that the idea of youthful beauty and loveliness so naturally connected by northern nations with the month of May, gave rise to its name."

The name must have been given a great while

ago, then; for although we do not know the precise period when the Salic Laws were first in vogue, we may infer from the fact of their excluding women from the right of inheritance, that it was when the world was in a great state of barbarism. But although generations have passed away, the world continues to say pretty things in praise of May, and to call it by its sweet, suggestive name.

To the common observer, the world is always young. The great ocean dashes its waves against the shore just as it did at "Creation's dawn."

"Time writes no wrinkles on its azure brow"

There is a general air of freshness and newness about the world in a spring day, which has a won-

derfully reviving effect. It is true, our planet has kept a kind of journal, by which we know she is not so very young, after all. It is written on the grey-headed rocks, on the hoary-headed mountains, and there are records in her bosom, which those prying people, the geologists, know how to decipher well enough, and they say that five thousand years comprehends a mere fraction of her existence. Yet the dandelions look out of the grass just as gaily as if they were the first dandelions ever created, and the birds sing as merrily as

"The birds that sung  
A hundred years ago."

No wonder, then, that the love of nature is one of the last loves that dies out of a man. All pleasures of society, all business pursuits, at times seem "weary, stale, flat and unprofitable," but so long as our senses remain to us, there is always something soothing and restoring in a walk through the lanes, and over the hills. We have often thought that if one of those poor families who live in a tenement with twelve other families in the filthiest part of a great city, could be transported to a neat dwelling, with several acres of land about it to cultivate, their morals and manners would undergo a speedy change. Perhaps it would do more for them, than a home missionary could do.

There is a great deal in being under one's own vine and fig tree; albeit another man's vine and fig tree may be much more thrifty and flourishing than ours, and there is something in the "old homestead" that awakens associations which will live when a thousand intervening events have passed from the memory. We would say nothing of the common superstition that childhood is the happiest period of life, but, at least, its impressions are the strongest. You may forget your first impressions on seeing Niagara Falls, but you will not forget the breathless interest with which you watched some venturesome companion go across



the great beam in the barn, close up where the swallows built their nests. You remember, also, the scaffold at the top of the barn, with a trap-door in it, and you used to creep to the edge of this door, and look down and think, what if you should fall through, on the floor, such an immense distance below! Of course, you hunted hens' eggs—everybody does—but does any one ever dream of finding a nest with a dozen in it, without being awakened before he had a chance to take them out? You have since studied Abercrombie, and know all about the theory of dreams, but at that time it only seemed the perversity of fate!

Doubtless there are people in the world who do not comprehend the harmonizing influence of rural life—to whom a yard full of cattle has no more individuality than a herd of buffaloes, or a shoal of herring—who cannot tell *Star* from *Buck*—although Patrick could tell you that there are radical differences in the dispositions of those two animals. Patrick says he can tell, too, a vicious cow by the expression of her eye, as quick as he can tell that a certain cross-grained, angular young woman will make a shrewish wife.

In a general way, there is a permanence about a country town, which a city cannot well have—the population is far less fluctuating. For instance, the first day of May is a signal for all the inhabitants of one street, to leave that, and flee into another. This, perhaps, involves new neighbors, a new church, new associations of all kinds. First of May in the country is a signal for house-cleaning—but it is the same old house, and very likely the same old paint you had cleaned these twenty years—and the same old neighbors are cleaning *their* old paint, and re-arranging *their* old furniture just as you are. In places like these, it is curious to see how, in generation after generation, you can trace the family names and family faces. If you have not been to your native place for years, when you do return home for a visit, you can easily tell all the little Smiths from all the little Browns, by their resemblance to the little Smiths and Browns you used to go to school with. You may even address one of them, although you have never seen him before, by his christian name, without running any great risk, for if it is not *he*, it is his brother.

Though country life has its advantages, we are far from saying that people always appreciate them. It is strange how little pains is taken to select a beautiful site for a dwelling. In riding through the country, it sometimes seems as if the care all went the other way, and that a man studied to select the ugliest spot he could, the one which would command the narrowest view of the surrounding landscape. We have in mind one in particular—you can recall a dozen like it. Soil barren and rocky, not a tree or shrub near it. Yet

pinus and hemlocks *had* grown there, and were still abundant on the opposite side of the road—but the man had made "a clearing." Why could not he just as well have left some of the trees nature had so kindly planted for him—left them in clumps and groves, so that his dwelling need not look quite so much like a martin box on a pole? It is a new house, and we hope he will immediately set out some trees in place of those he cut down, plant a few woodbines and honeysuckles, thin out those trees on the opposite side, so that he can have a prospect across the country, and so have a "home," instead of "four square walls." His wife and children ought to be very much obliged to us for these suggestions. If he wants to know when he shall begin this reformation, we answer the *first of May* is an excellent time.

*For the New England Farmer.*

#### HUNGARIAN GRASS.

MESSRS. EDITORS:—I sowed four bushels of Hungarian grass seed upon ten acres of land, from the 6th to the 16th days of June. In 1858 I got between two and three tons per acre from second quality land, and four tons from good land, made very fine with plow and cultivator, without manure; it yielded grain, or seed, amounting to more than one-fourth of the whole weight, and of the richest kind.

In 1859, in common with some of my neighbors, I was cut short in anticipated results, while others were quite satisfied with its yield. Constant rains prevented my sowing it at the proper time, which is, here in New England, in my opinion, from the 25th of May, to the first day of June.

On the third of July occurred that ever memorable shower, to the inhabitants of this vicinity, which washed down our mountain sides a sufficient quantity of gravel and rocks to make monuments to the event, which will last for ages to come. The same washed out and buried up about half of my seed, after which the cold season and early frosts cut short the rest to a very great extent, leaving me a chance to gather in about ten tons, which proved to be richly worth what it cost me. The hay possesses a sweetness which gives it a preference in the estimation of hay-eaters, and a richness that makes a greater flow of milk from cows fed upon it, and butter of a superior quality. Like corn, it will do best in a warm season; but it will do better in a cold season, like the last, than corn, by supplying the farmer with coarse grain, if sowed at the proper time, with anything like careful management. It should not be sown in New England till the ground gets warm. It will decay before it germinates in cold earth, and if it barely germinates in such earth, and remains so a few days, it will receive a sickly hue, and becomes only capable of a dwarfish existence. I am particular on this point, that those who have a great desire to get all sowing done very early, had better not engage much in its cultivation. I have raised it two seasons, have had as good success in stocking after it, both years, as I ever had with wheat, or any thing else. Very many to whom I

sold seed last spring have testified to its good qualities as surpassing clover and herds-grass, and the pleasure they feel in having it in their possession.

One man in the neighborhood said to me recently, "I like it well, my oxen are always ready for it." I replied, "Are not your oxen always ready for any good hay?" He said, "No. Last fall when I was hauling stone with them, till they were weary, they would lie down on other good hay, to rest, before they would eat it, when at the same time they would be ready for the Hungarian."

Similar expressions are common from those who have proved its worth by feeding it to all kinds of stock. I will further suggest for the benefit of any about to commence the cultivation of it, that it seems to demand one day more of drying than other hay.

I am much inclined to the opinion, that it will be found economy to cut it at the time when the seed is mostly ripe, which happens when the blades are about half turned yellow. In this way I have a good crop of grain, next, if not equal, in value, pound for pound, to corn, and a crop of hay, when well cured, that will compare well with other good hay.

This grass never grows too large and stiff, like millet, but each seed throws up from the root, in any thing like fair ground, from one to five or ten stalks, and sometimes, in rich land, sowed thin, from ten to fifty of about equal size, each covered with its own beautiful blades, and when ripe, a heavy head.

Should any wish to examine its formation, I will send a specimen on receipt of the requisite postage, three cents.

WM. RICHARDS.

Richmond, Mass., March, 1860.

*For the New England Farmer.*

#### PRACTICAL PROOFS OF PROFIT.

MR. EDITOR:—In the last number of your very valuable paper, a writer from South Danvers heads an article thus: "Practical proofs of profit in farming." The writer mentions a certain locality, where there are thirty or more individuals, who own from five to twenty acres of land, and are in comfortable circumstances, &c., and have managed to lay up a few hundred dollars yearly, and then gives a gentle hint that they would like to avoid their taxes. I do not think it is so, as no class in our community is more willing to be taxed than our farmers. I happen to be a farmer in another part of the town, where good and successful attention is paid to farming, and I consider that there is no occupation more healthy and honorable. Still, we cannot all be farmers, and as the writer has made some allusion to our business men, which seemed to me to be unjust, is why I have thought fit to reply to it. As an old resident in this town, my observation is, that the industrial habits of the people are not, and cannot be surpassed by any other town in the Commonwealth; it is the manufacturing interest of the town that assists us farmers, and wherever there are manufacturers of various kinds, the town and adjacent towns derive great advantage. For my part, I wish that the manufacturing interest might increase, and then we farmers would profit by it.

In no city or town can all succeed in business; by some unforeseen circumstances, individuals are stripped of their property before they are aware of it; not only the business man, but the retired merchant, the farmer and professional man, all alike are liable to misfortune.

J.

South Danvers, Jan. 10, 1860.

*For the New England Farmer.*

#### PERPETUAL CROPS OF RYE.

MR. EDITOR:—As your columns are open to your various correspondents, I take the liberty to note a circumstance that has come under my observation on the subject of raising a crop of rye. I have resided in my present location in the town of Fairfield, Ct., for over twenty years, and have noticed a piece of poor land on a hill-side that has been cropped with rye for the last fifteen or sixteen years. During that period, and the last few years, the crops have been equal if not superior to the first. The land itself would not sell for \$30 per acre for farming purposes; it is very thin, and full of rocks and boulders, similar to a portion of the side-hill land in this State, and the proprietor, a Mr. Knapp, informed me a few days since that his average rye on this lot, less than three acres, has been from 40 to 45 bushels, or equal to 15 bushels per acre. All the manure and tillage the land receives is five or six loads of poor barn-yard manure, spread alternately on the land before plowing; it receives one plowing, and the seed is harrowed in. It is now stocked for the coming year, and its present appearance indicates an average crop. If this is not more profitable rye farming than the average, I am at a loss to know, and if you can demonstrate the cause of this land being no more reduced by this successive cropping, I should be pleased to learn. The occupier says it will bear this system of cropping *ad infinitum*.

JOHN MOODY.

Bridgeport, Mountain Grove, Ct.

REMARKS.—The writer states that this piece of land is on a hill-side. If the piece devoted to rye has higher land above it, the wash of mineral as well as vegetable matter—but especially of the mineral—from the higher land, may account for the perpetual fertility of the rye land. If this is not the reason, we cannot account for it.

CLOVER.—Every farmer should have a piece of clover, whatever other soiling crops he may raise; it not only makes up the variety necessary to keep cattle in health, but its yield is large and profitable; it takes less from the soil, and more from the atmosphere, than most other green crops, and the portion remaining in the soil contains material to improve its mechanical condition, as well as to progress the inorganic constituents which it elevates from the sub-soil after sub-soil plowing, and is almost sure of success on any soil worthy of cultivation.—*Working Farmer*.

TO CURE GARGET IN EWES.—Rub raw linseed oil on the udder once or twice a day. So say Messrs. Nichols and Dickson, in the *Valley Farmer*.

# LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The ninth meeting of the present series of the Legislative Agricultural Society was held last Monday evening, in the Representatives' Hall at the State House. CHARLES L. FLINT, Esq., Secretary of the Board of Agriculture, occupied the chair. The subject for discussion was, "*What are the most profitable crops to raise on Massachusetts farms?*"

The chairman, on assuming his position, said that the subject was one having a wide range, and, in his opinion, should be considered in its relation to the various parts of our Commonwealth, as what would be most profitable on one kind of soil would not answer on another. He was convinced that a few crops would always be staple, such as corn, potatoes, oats, and the smaller grains, yet what would be the most advantageous to raise in Essex county might not be so in the Connecticut Valley, and in the consideration of the question this must be allowed. He spoke of cranberries as an example of a profitable crop, yet he said there were only certain localities in which these could be raised. He considered that under favorable circumstances, for reliability, the grass crop was the best, as from the milk, in the neighborhood of cities, a handsome profit was realized. As a general thing, a good grass farm required but little labor or expense and thus was the most profitable, but in different parts of the State he admitted there were more profitable crops raised, and he alluded, in this connexion, to the tobacco and broom corn of the Connecticut Valley.

Mr. Flint then read portions of a statement relating to the cultivation of flax for making fibrilia, prepared by STEPHEN M. ALLEN, Esq., for the society.

The flax plant may be grown in any climate or soil, although the constituent elements of the fibre will differ on account of changes in either soil or climate. The most favorable climate is that where the temperature is most equable—where neither severe drought nor excessive moisture prevails. The best soil is a dry, deep loam, with a clay subsoil, and this must be properly drained, as when it is saturated with either underground or surface water, good flax cannot thrive; light sandy or gravelly soil, and very strong underdrained clay, should be avoided. The seed should be plump, shining and heavy, and should be sown about two bushels to the acre. After sowing it should be covered with a seed harrow, going over it twice, and once crosswise, and then rolled, covering the seed about an inch. The crop should not be weeded prior to a drought. The fibre is best before the seed is quite ripe, as if it re-

mains longer it becomes coarse. The best time for pulling is when the seeds begin to change in color from green to a pale brown. It can be cut with a scythe or mowing machine, and used as wheat in threshing, and then broken on Randall's Brake, thus doing away with the necessity of rotting. By this plan of harvesting, the roots remain in the ground and act as fertilizers, while unrotted straw is worth twice as much as the same straw rotted.

Col. HEARD, of Wayland, said it was not many years since the corn crop fell in the estimation of the farmers of Middlesex county, but there had been a reaction. He thought that now it was the most profitable crop a farmer in that section could raise. An acre of land, said he, should yield 75 bushels of corn, with good cultivation, and then the ground would be left in a better state for potatoes, oats, or a grass crop, than from any other crop. Corn will sell for from 75 cents to \$1 per bushel, and this alone would make it more valuable than hay, without taking into account the stover, which he thought was as valuable feed for dry stock and working oxen as the hay itself. He said that the potato crop was considered by some as the most valuable crop, but he thought this was only where it could be transported cheaply to a market. All things considered, he thought in our mode of agriculture—the rotation of crops—the corn crop was most profitable, and spring rye the next.

Mr. BUCKMINSTER agreed with the previous speaker in his estimate of the value of the corn crop, and considered it not only the most valuable but most sure, and took the returns of the last century to substantiate this. He alluded to the value of the stalks and leaves as food for cattle and horses as being very high. In speaking of the tobacco crop, he thought that it should not be considered as a very reliable crop, as its value was quite liable to fluctuate from the influence of public opinion, and that this crop, in the long run, was not profitable to the community. He said he had conversed with a Chelmsford farmer, a few days ago, who had told him that he could raise no crop so profitable as corn, and that it cost him 50 cents per bushel, while he sold it for \$1, thus making 100 per cent. on the crop.

Mr. WETHERELL also spoke in favor of the corn crop, and said that with ordinary good cultivation, 60 to 75 bushels to the acre could be raised in this State. In regard to the value of the fodder, he said a Duchess county farmer had told him that cattle would thrive better on the corn fodder from a given quantity of land than on the hay raised on that same area. A Worcester county farmer had also told him that he could raise corn for 35 cents per bushel.

Col. BRIGHAM, of Grafton, was the next speak-

er. He said that the question depended entirely on the location of the land to be cultivated. He considered that in Worcester county, particularly about where he resided, the hay crop was the most profitable, as in making milk it made the best return. The fruit crop he considered very valuable, but he did not think that a bushel of corn could be raised in his county for less than \$1. He considered that the value of corn fodder had been too highly estimated, as, from experiments carefully made by the Board of Agriculture, at Westboro', it was decided that it was only one-fourth the value of English hay. He thought that after corn, turnips and carrots were next in value.

Col. Brigham said he thought apples were the most profitable crop, for money, a farmer could raise, and he named the Baldwin and Hubbards-ton Nonesuch as the best kinds, giving the preference to the latter, as he said it bore every year, while the former bore every other year. It might be argued, said he, that if every farmer went to raising apples there would be no market for them, but he said England would not only take all that could be raised in this State, but in New England. He thought a crop of Baldwins could be depended on every other year, as he had only known this to fail once in the last twenty years.

Mr. CROSBY said that from his experience he thought there was not so much benefit derived from an orchard of 10 acres as from 10 acres of rye. On his farm the yield of corn for the past 30 years had not averaged less than 50 bushels to the acre, and the price had averaged \$1 per bushel in the market. He spoke of the value of Indian meal to young cattle, and said that from experiments with three calves, that a friend of his made, feeding two entirely on hay through the winter and giving the other a gill of meal with hay, the latter was worth the other two together in the spring.

Col. HEARD said that he did not consider the question for discussion included the raising of fruits, as he thought that more pertaining to the horticulturist, and it was with this understanding he had previously spoken. As to raising flax, he considered that this must depend on the demand for the article. In Middlesex county, some years since, a premium had been offered for a crop of flax, and quite a number competed, and the premiums were awarded, but there was no demand for the article, and the culture ceased.

Dr. LORING, of Salem, said the question under consideration involved all the great interests of agriculture, as it was the first matter to be decided, all others depending on it. From his experiments, reading or inquiry, he had not been able to ascertain what is the most profitable crop to raise. We have been told that corn can be raised for 35 cents per bushel by one speaker, while an-

other says it cannot be raised for less than \$1, and while this difference existed, he thought it unfair that a man should be charged with want of brains because he advocates root culture. I don't know, said he, that corn is indigenous to Massachusetts. I have never seen or heard it proved, and I don't believe it.

He admitted that fruit culture was profitable for a time, but this did not last. He spoke of renovating old apple trees, and said that in a measure he knew this was profitable, but he would not advocate its being followed up, as it would not pay for the time.

In relation to flax, he said that Mr. Allen had neither given the cost of raising the crop or the value of it, and in the absence of this it could not be considered. He doubted if on light, sandy soils, the hay crop was the most profitable, but on heavy soils he had no question as to the profit in raising that crop. In considering the comparative value of hay, corn and roots, Dr. Loring said it had been stated that a good crop of corn would yield 75 bushels to the acre, while the statistics showed that the average in the State was only 30 bushels. Without agricultural skill, said he, nothing can be done in farming, and he then estimated the cost of raising 75 bushels of corn to the acre, saying that it would require 8 cords of manure to the acre, at \$5 per cord; seed, plowing, &c., \$10; cultivating twice and hoeing twice, \$8; cutting, \$1; getting it to the barn, \$1, and husking, \$3—making \$63 per acre in the corn-house. With the same cultivation and manuring, he contended 1000 bushels of carrots could be raised, and this he considered a very profitable crop, and the most advantageous in his section, as taking it for granted that an acre of carrots could not be cultivated for less than \$60, it left \$67 per acre of profit. It had been argued that the effect of roots on land was bad, but in Essex county no crop had been found so good as the carrot, which, although it could not be cultivated year after year, left the ground in the very best condition either for grass or corn. He spoke of farmers in the Western part of the State having to send to Albany for corn at a cost of \$1 per bushel saying that two-thirds of this expense would have been saved had they raised root crops.

Dr. LORING then spoke of the value of the tops of carrots for fodder, and said that in his estimate he had allowed nothing for this. The introduction of turnip culture was an era in the agriculture of England, and Mr. Webster had considered it such an event as to date the rise in English agriculture from that time.

Col. HEARD thought no good farmer would neglect raising as great a root crop as he could profitably attend to with his other crops, as he considered it of great value on any farm, but he sup-

posed, as a matter of course, Dr. Loring did not advocate the raising of roots entirely.

Mr. STOUGHTON, of Gill, wished to know what the average crop of carrots was, as he doubted whether it was over 400 bushels to the acre, and this being the case, it would make a great difference in the profit. In his section tobacco was considered very profitable, and notwithstanding what had been said by a previous speaker, he thought it best for farmers to raise the crop that would put the most money in their pockets. Tobacco would ordinarily yield a ton to the acre with the same cultivation as corn, and would bring \$300. He also spoke of the great profit from raising water-melons, but he considered the grass crop of the most importance, and the men who raised this crop he had found to be in the most independent condition.

Mr. S. M. ALLEN, of Boston, then spoke of the cost of raising flax, and the value of the crop, and contended that there would be no more trouble or expense in preparing the soil than for a crop of wheat, and that it could be raised as cheaply as either wheat or oats, at an expense not exceeding \$90 per acre, while the value of the crop would be far greater.

It was announced that the subject for discussion at the next meeting would be, "*Manures—the kinds most useful for different crops, and the best mode of application.*"

*For the New England Farmer.*

#### THE TRUE OBJECT OF FARMING.

The caption of this article may seem to some readers a queer one, if we consider how generally the accumulation of property is known and conceded to be the ruling motive of the farmer's life. But, although it is the farmer's chief desire, in common with those who follow other pursuits and professions, to "make money," yet, without doubt, it would be far better for him either as a physical, mental, or moral being, to place some other object or aim high above this in his mind.

For a few weeks past, I have noticed with pleasure several communications upon the profit and loss of farming. These communications show that there is a waking up among the farmers, and that they have increased desires to know whether they are gliding down the smooth, deceitful stream towards bankruptcy and ruin, or slowly trudging along the highway to competence and ease. The farmer ought surely to know whether he is in a prosperous condition or not, and his efforts to gain in riches are worthy of praise, but should the multiplication of dollars in his pocket, or in the bank, be his strongest motive to action? Shall the farm be deserted, and allowed to become a wilderness, simply because the owner cannot have the pleasure of laying his fingers upon as many dollars as he imagines he might do, if engaged in some other business?

Every farmer ought to make a good living, and that he can do this, and something besides, has

been proved beyond all doubt. This is more than many mechanics, traders and some professional men can say. Whoever heard of the failure of an honest, intelligent, industrious, economical, energetic farmer, unless by sickness, or unavoidable accidents? That he often does become involved in debt, is not a proof that he is in poor business, for ten to one the fault is in himself.

But without discussing the profits of farming any farther at this time, I propose to show some of the objects which the farmer should have in mind besides the acquisition of wealth.

1. He should strive to make his farm grow better in every respect, so that whoever becomes its owner after him, shall find no cause to curse his predecessor. To enrich a farm, requires much knowledge, experience, and enterprise; and the process is slow; but it is a business which pays, even in the present tense, for the more it is enriched and cultivated in the right way, the more of course it will produce.

2. The farmer, while subduing and cultivating his farm, should make still greater efforts to improve the garden of his mind and heart; and there is no class of laboring men who have so good opportunities as the farmer for self-improvement. He has one book open before him every day—the book of nature. And if his eyes, ears, understanding and heart are ever attentive to its teachings, he will constantly increase in knowledge, wisdom, and goodness. How many guides he can have, if he wishes, to assist him in exploring this vast storehouse of knowledge. Chemistry, botany, geology, natural philosophy, physiology, zoology, ornithology, entomology, pomology, horticulture, and if these are not enough to satisfy his thirst for knowledge, he can take astronomy for a pilot, and, travelling through illimitable regions of space, visit the numberless worlds of light, above, around, and beneath us, and learn something of their laws and character.

It is not expected that a person who is actively engaged in the labors of the farm, can become a proficient in all, or any one of these studies, or sciences, for each of them are sufficient to occupy, and have occupied some of the greatest intellects of earth for a whole life-time, but he can make a little progress, and get a faint idea, at least, of the Creator's works. Every farmer who is worthy of being called such, already possesses some knowledge of all, or nearly all, of these sciences; he cannot successfully cultivate his farm without it, and it is plain that more knowledge would give him greater success, and at the same time enlarge his mind, and perhaps benefit his heart.

There is one science, that of *Æsthetics*, or the science of the beautiful, which the farmer has the best of opportunities to study, and revel in to his heart's content. The beautiful like the influence of love in human actions, pervades all the works of nature. The touch of beauty's gentle fingers can everywhere be seen, and vain would be the task to tell of all her sweet fancies. She, and her charming sister, melody, make the farmer's home their own; and who will say that their presence is not needed there, or that their influence is unfelt?

3. If the farmer has a family, it should be an object of his life so to rear his children to the stature of men and women that they may be a blessing and an honor to the world. There is no place

better than the farm for children of any age—no matter what path of life they may afterward choose to walk in. The farm is God's nursery, and if the beings whom he places there "to dress it, and to keep it," do their whole duty, it will truly be a paradise upon earth; their children "will be like trees planted by the rivers of waters," and "will arise up and call them blessed."

For a few years past, the writer has had occasion to associate considerably with those who have never lived in the country, whose childhood and youth were spent amid the noise, bustle, and dust of a crowded city, and whose childish sports and gambols were restricted by walls of brick or stone. Upon such I have always looked with pity, as having lost some of the sweetest pleasures and remembrances of life. From personal observation alone, I am confident that the morals of children living in the city, are, in general, far below the moral elevation of those whose homes are surrounded by all that is noble and lovely in nature, instead of the miserable fabrications and imitations of man.

4. While fulfilling the duties already mentioned, the farmer should strive to obey the golden rule, "Love our neighbors as ourselves," and "Do unto others as we would have them do to us." This rule is equally binding upon every human being. The beneficial effects which would follow a strict obedience of this rule have never been felt by man except on a very limited scale. But, without doubt, they would revolutionize the world, and cause the wilderness of men's hearts to "bud and blossom as the rose."

If what I have written convinces any one, and the farmer especially, that there is something worth living for, of more importance than making money, my object in writing this article will be obtained.

S. L. WHITE.

Groton, Feb. 20, 1860.

*For the New England Farmer.*

#### AN OLD ORCHARD.

MR. EDITOR:—I have recently purchased a farm in North Groton, N. H., and the mowing, tillage, pasture and wood lands are in a good state, but there is a large orchard upon it, which looks as though thunder storms were quite frequent hereabouts, and that lightning was wont to exercise its scathing influences among the branches thereof, and that "sapsuckers" had iron bills, and gathered sap the year round. After a very learned, critical and scientific consideration of the subject, and quite a prolific discussion of the points at issue, I unanimously came to the conclusion, that I would at once lay the axe at the roots, the pruning knife and saw at the branches, and a good sharp scraper to the trunk of every tree in the orchard, albeit it is in the month of February. In perusing the report of the sayings at the Legislative Agricultural Meeting, in the *Farmer*, last week, it appears by the remarks of some of the speakers, especially the Hon. Simon Brown, that about the middle of June is the only proper time to prune fruit trees. Now the probability is, that my trees were never troubled with the pruning knife before, at any season of the year, and the serious question I wish to propose, is, will they live to need the second operation of the same sort?

I have always been a devoted worshipper of Pomona, and I do not wish now to destroy these objects of my adoration.

B.

North Groton, N. H.

REMARKS.—Mr. Brown replieth, that if thou layest the axe at the root of the trees, thou mayest about as reasonably expect a crop of fruit from them, as thou canst if thou layest the knife and the saw upon their branches in the latter part of *February* and through the month of *March*. Thou must study the nature and growth of the tree—the movements of the sap, its seasons of activity and of rest,—learn how it returns to form wood after being elaborated by the leaves, and then thou wilt probably come to just conclusions as to the particular season when it is best to prune thine orchard. If thou canst not complete the work in June, finish in *October* and *November*, when the leaves have fallen, and the tree is, comparatively, at rest.

*For the New England Farmer.*

#### 70 YEARS' EXPERIENCE IN FARMING.

MR. EDITOR:—Farming from youth to seventy years of age has not convinced me that it is a losing business. I shall not undertake to solve Mr. Pinkham's questions, since the old rule of practice is superseded by a rule which takes less figures, and herds-grass hay has taken the place of pod and bog-grass.

Such cows as I have kept for the last twenty years, nearly all of which I have raised myself, have consumed by the steelyards an average of 20 pounds good hay per day, when in milk, and 15 lbs. per day when dry. Twenty years ago, and many times since, I weighed for my cows, commencing two months before calving, and continuing four months after, as nearly as my cows came in together; of course, varying some one week to four weeks. Now I think I shall be allowing a full price for hay to call it 80 cents per cwt. in the barn.

20 lbs. per day for 6 months, or 183 days, is 3,660 lbs.,	
at 80 cents.....	\$29.28
Summer, 26 weeks, at 50 cents per week, is.....	13.00
	<u>\$42.28</u>

If you please, add to this 5 pounds grain, at 1½ cts. per pound, and deduct 5 pounds from the hay, the keeping for the year stands \$48.69. Now, if I can get \$48.69 from my cows per year I shall lose nothing but taxes and interest, and I think I can get even that, so that I can stand it one year more. I will say nothing about calves. They are sold for about 50 cents to \$1, at three days old.

Milk, for 6 months after calving, 8 qts. per day, at a yearly average of 3½ cts. per quart, is.....	\$45.75
6 months before calving, 4 qts. per day, is.....	22.74
	<u>\$68.49</u>
Keeping.....	48.69
Profit.....	<u>\$19.80</u>

If I have a cow that will not do as well as the above, I put her to one peck corn meal per day, and milk her till the butcher wants her.

And now I want to tell you how much I lose in raising my own cows. Within twenty years I have raised seventy-one cows; all but four have been milked and proved. But four of them have failed of making good cows. I have about come to the late Mr. Jaquith's opinion, "that a cow can be raised to order." I choose to have a calf to raise born in November to January. I let them take from the cow 4 quarts milk per day, 8 weeks—56 days.

4 qts. per day is 224 qts., at 3 cts. per qt., is.....	\$6.72
2 lbs. shorts per day, 127 days, at 1 1/4 cts. per lb., is.....	3.81
1 cwt. hay, at 80 cts.....	8.00
26 weeks' pasturing, at 10 cts. per week.....	2.60
This brings up the first year, and for the second year	
I give 20 cts. per week, 52 weeks, is.....	\$10.40
	\$24.53

Now there is no more expense, for the calf is now a cow and will pay her own way, and at 3 or 4 years old will sell for from \$40 to \$60. I have raised calves without any milk, but I find it best to begin with a good calf, keep it well till it becomes a cow, and then keep well; and I can get what I call good pay for all given calves and cows, and \$20 or more than that on each calf, and about that yearly on each cow. If a young man can do as well as an old one, I cannot see why he may not live by farming.

OTIS BRIGHAM.

Westborough, Feb. 9, 1860.

*For the New England Farmer.*

#### "ONION IN THE HUMAN EAR."

Your correspondent, from "Brooksville," in a recent number, offers some recommendations as to the insertion of the heart of the onion into the ear, as a curative for that painful ailment, the ear ache. He states, that when afflicted, he resorted to this remedy, inserting the onion heart in his ear; and thus it remained, baffling his efforts to withdraw the same, for nearly a twelvemonth; occasioning deafness and great inconvenience, until, amid much suppuration, it at last evolved itself. As a remedial agent, in a process subject to such required duration, and painful contingencies as this, your correspondent could not wish others to adopt it. His meaning, I think, he does not clearly state. Placed in a cotton bag, and laid flat on the ear, the application of onion in pain has been found beneficial. But an insertion of even a portion of the same, or of any article, (save a trifle of some delicate wash, by a proper ear syringe, and even this to be in the hands of a physician,) is ever fraught with the most dangerous consequences. Experimentally I speak on this subject, and would caution all persons against adopting too readily any such hazardous processes. When one fully understands the delicate arrangement of that wonderfully and fearfully constructed organ, the human ear, the slightest invasion of which is oft times "beyond the reach of the healer," he would not hesitate a moment, I think, as to an endurance of a continued aggravated pain, rather than lend himself to the adoption of even a questionable remedy. Far better is it, as I deem it, in most cases of suffering, patiently to bear those ills we have, than fly to others that we know not of.

"Felix quem faciunt, aliena pericula cantum."

February 14, 1860.

OAK HILL.

*For the New England Farmer.*

#### IMPROVED CHURN DASH.

MESSRS. EDITORS:—When we study into the philosophy of churning cream to make butter, the idea suggests itself at once, that the agitation of the cream is all that is necessary to accomplish the object. Having experimented upon a variety of churns, I finally concluded that the old dash churn would answer my purpose best for churning the cream of a few cows. I went to the cooper and bought a churn with a dash, made round, adapted to the churn, with holes through it, as the fashion was at that period. After using it a few years, dreading churning day as I should any other necessary evil, I had a dash fixed to the handle in the form of a cross, which was a relief, in a degree, of the hard labor required to churn with the round dash. Last fall, as good luck sometimes happens, the cross-dash gave out. I thought as long as there was no particular virtue in the shape of a churn dash, and all that was wanting to make butter come, was something to agitate the cream, I took a narrow piece of white oak plank just wide enough to admit the handle, made a hole with an auger and inserted the handle, which constituted my whole dash. For the relief of the dorsal muscles in elevating the dash, I beveled off the upper surface of the narrow dash to let it slide through the cream more easily. I have used this little simplified dash with decided relief to the operator, not requiring, I should think, more than half the muscular power to perform the operation that the old dashers did.

The cream, after being prepared by scalding the milk, has come to butter within from five to fifteen minutes, since we have used the improved dash. The most laborious part of churning with the old dash was raising it, which would lift the churn from the floor, cream and all, at every stroke, unless held down. I make no pretension to being the first in improving the churn dash, but to those who have not tried it, I would recommend the narrow dash as a labor-saving improvement. There may be plenty of churns with the narrow dash in the market, if not, I am surprised to think what stupid creatures we are, not to have thought of such a simple alteration.

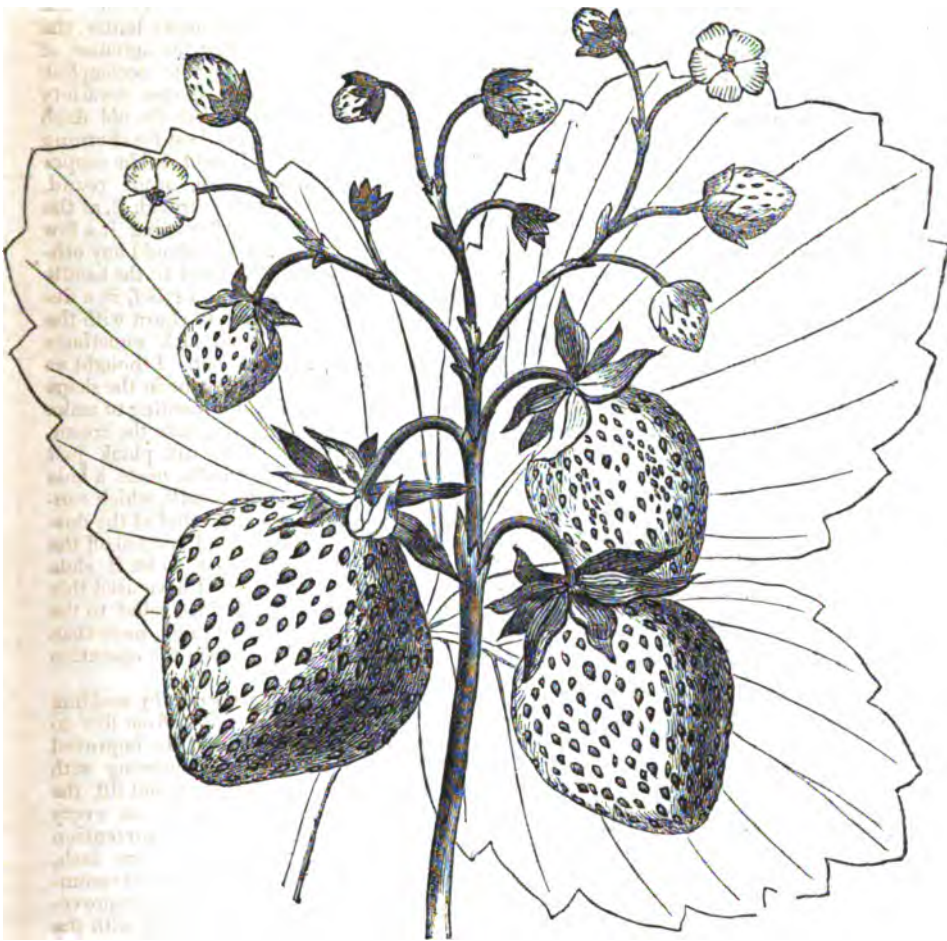
North Wilmington, Feb., 1860. S. BROWN.

*For the New England Farmer.*

#### COST AND PROFIT.

MR. EDITOR:—I have carefully perused the articles in your paper, headed "Is farming profitable?" by Mr. Pinkham, of Chelmsford; also one by Mr. Bailey, of Newbury, Vt., "Is stock raising profitable?" and I should like to inquire of those gentlemen, whether about three-quarters of the amount which they put down as the cost of raising corn, cattle, sheep, &c., does not go into their own pockets? That is, supposing they do the ordinary amount of work which a farmer performs. If all his work is charged to the cost of the crops, he certainly should have credit for the same amount as money earned. If it costs a farmer but three dollars per ton to get his hay, and that hay must all be consumed on the place, I think it is hardly fair to charge it at \$8 to \$10 per ton, in estimating the cost of cattle, unless the farm is credited for the difference as profit. O.





CUTTER'S SEEDLING STRAWBERRY.

The above engraving is a correct outline of this new and beautiful variety of strawberry. It is hardy, remarkably fruitful, and bears much longer than any of the numerous varieties with which it has been grown for the past ten years.

The fruit is very large, measuring four inches in circumference, and often many specimens measured more; light scarlet color, conical, with a neck; hulls easy, a very important fact. It has a remarkably wild or native flavor, fruit stem very tall.

It is a seedling, carried by birds from a cultivated bed. It originated in the grounds of Mr. B. F. CUTTER, of Pelham, N. H., nearly ten years ago. Mr. Cutter's attention was attracted to it by its vigorous habit, and large, even-sized berries. It has not failed in any location to excel in fruitfulness and length of time in bearing.

I have fruited it four years. In 1859 I gathered fruit abundantly, thirty-five days in succession, while on the same soil and treatment (sandy loam

and gravel) the Boston Pine, Hovey's Seedling and Jenny Lind only bore twenty to twenty-five days.

The fruit was shown four successive weeks on the tables of the Massachusetts Horticultural Society. The Committee of Fruit say: "It is a large berry, of a light color, regular conical shape, and sweet."

In thus bringing this fruit before the public, I am confident all who will make trial of its merits will not be disappointed. Its great hardihood, coming out in spring in locations where all other varieties have been seriously injured, its faculty of fruiting without other varieties to fertilize it, (staminate,) its great length of time in bearing, approaching to ever-bearing, its tall fruit stem, the ease with which it is hulled, large brilliant berries, its wild native flavor and large foliage, must commend it to all. It is very fruitful grown in thick masses, and will doubtless be still more so grown in hills.

J. W. MANNING.

Reading, Mass., 1860.

*For the New England Farmer.*

THOUGHTS SUGGESTED BY THE N. E.  
FARMER, MARCH, 1860.

Page 110—"A Silver Pitcher given to a Farmer."—The presentation, to a farmer, of a massive silver pitcher and a pair of goblets, embellished with appropriate agricultural emblems, in recognition of his services to the agriculture of New York, and as a testimonial of the appreciation of his services in the cause of agricultural improvement, is a fact quite noteworthy, not merely as something new and without precedent, but also as suggestive of some gratifying, stimulating, and encouraging reflections. Without attempting at all to guess at the reflections it may lead to in the minds of others, I will briefly note two of the more prominent which it has provoked in my own mind. First, then, it has appeared to me that this fact might serve to abate, or to abolish entirely, the common notion that farming is a mere work of routine, requiring little or no exercise of mind, or judgment, or skill, or knowledge. In the case of Mr. Johnston there is proof in abundance that there is room in the art of farming for the exercise of all of these; and that it was the exercise of these in a pre-eminent degree which attracted the notice, and commanded the respect, admiration and gratitude of the agricultural fraternity generally, and of the presenters of the testimonial especially. Let this testimonial serve always, then, as a memorable proof that there is room in farming for the exercise of the most estimable faculties of the mind, and for the practical application of almost every kind of knowledge. And, secondly, let this testimonial be to every farmer a stimulus and incitement to do his best to improve the art and operations of farming. The eyes of his brethren are upon him, and he will be rewarded by their respect, as well as his own.

*Horn Ail.*—The remarks made on this subject, at page 118, in reply to the inquiries of Jer. Eddy, are very sensible, and such as we would like to reach the eye and the intellect of every man who owns an animal with horns. Perhaps not every man, but certainly a large majority of those who have the care of neat cattle, entertain just such notions, and favor just such barbarity and absurdity in practice, as the hints and cautions in these "remarks" are leveled against. That is, the majority of farmers seem to believe very readily, when there is anything wrong with a cow or an ox which they cannot understand, and which is accompanied with either unnatural heat or coldness in the horns, that said cow or ox has got horn-ail or hollow horn, and farther, that the best thing to be done is to bore a hole in the horn and pour in turpentine, camphor, or some other material of an irritating quality.

This absurd notion and this barbarous practice need, to say the very least, to be reconsidered. For in these days of boasted light, and knowledge, and intelligence, when boys and girls study physiology, and when all have abundant opportunities to know that cold feet and a hot head are mere symptoms of some disordered state of the stomach, or some other remote portion of the body, it is truly marvellous that so many should be found who assent to or believe that coldness or heat in the horns is a disease in and of itself, and not

merely a symptom of some disease affecting some one important organ or the system generally. I would like to put the question to some of those who believe in the existence of disease in the horns or in the tail, and who call it horn-ail or tail-ail, why they believe as they do, and why they do not consider that heat or coldness in the horns are much more likely, like cold feet, or a hot head, or pain in the head from a disordered stomach, to be mere symptoms of some disease in a more important part of the system, than proofs of a diseased condition of the horns themselves. I would like to ask them what they themselves would think of a physician who, in treating the diseases of the human body, should mistake the pain in the right shoulder which usually accompanies disease of the liver, for a distinct and independent disease of itself, and should call it shoulder-ail, and treat it by local applications, without any reference to that morbid state of the liver, of which it is really and truly only a symptom.

It seems that even a very slender knowledge of physiology, and a very slight acquaintance with the ordinary phenomena of disease in human beings, might suffice to make any one somewhat suspicious that there was a want of sense, and of soundness of thinking, in the opinions prevalent about what gets the name of horn-ail or hollow-horn. And certainly, *the truth is*, that when the horns are either unnaturally cold or warm, the disease is in the brain, or stomach, or bowels, or lungs, or in the system generally, and not in the horns at all.

MOORE ANON.

*For the New England Farmer.*

ON PRUNING PINE TREES.

MESSRS. EDITORS:—Wishing to impart, as well as to derive interest and profit, from the visits of your useful journal, please accept the following reply to the inquiry of "N. B. Safford."

I owned a lot in Lancaster, similar to the one he describes, though probably a few years older. After some experiment as to the time of pruning, I became satisfied that it should be done when the tree would not bleed, if at all. As to thinning, I knew they could not half become trees of adequate size and height for profit. The question with me was, will the wood pay for thinning? Now, if so, I should gain more by the growth of the lot, than to wait longer. Of course, a gain without loss, was a safe business for a young man, who could find no one that could advise in the case, from knowledge. Having settled both questions in my own mind, as to the profit of thinning and trimming, for the benefit of the lot, I determined to go ahead, and with some select active hands, with keen light axes, we improved the autumn and winter, on bare ground, or little snow, in trimming, as high as we could reach, those left at a distance of five or six feet apart, say nine or ten to a square rod. We cut roads wide enough for a sled and pair of horses, and drew the saplings, twelve feet long, butts to the road, each side. We went over twenty acres and cleared the ground. They grew rapidly, and I am able to say, fully justified the measure. The part of the lot we left was subsequently cut over, all at once, ten years after, and was far behind the other, both in growth and beauty.

BENJAMIN WILLARD.

Lancaster, Mass., 1860.

*For the New England Farmer.*

### BEES—PURCHASING STOCKS.

Those who intend purchasing stocks this spring, should be ready to attend to it as soon as possible after the first days warm enough for them to fly. It is a better time to select than before or afterwards. If the first day they fly is really warm, they often issue in great numbers; apparently get confused, and enter the wrong hives; yet at this season seldom quarrel. Some stocks, by this means, get more than belongs to them, while others lack a corresponding number. Occasionally one will lose its queen during winter, and the bees will generally desert, joining some other stock on the first pleasant day. It is best to let these things get regulated. On the other hand, if put off too long, until the bees have been out several times and marked their locality, it is an injury to move them, especially short distances. The idea that a bee knows its own home by instinct, or is attracted to it, as the steel to the magnet, and can readily find it, however much it may be moved about the yard, after its locality is once properly identified, is erroneous; yet, if the removal is beyond their knowledge of country, the injury will be much less. Consequently this must be the best time to purchase.

I have seen bees enough purchased by those too eager to try their luck, to be pretty well satisfied that *all* buyers are not good judges of the article—they seem to misunderstand the requisites of a good stock of bees, supposing that more depends on luck than any thing else; that if they get a stock either good or bad, and set it up, and if it does not prosper, "why bees will do nothing for them." When this has been the case, I would advise another effort, and suggest that they use a little care in making a selection of the first stocks and try the efficacy of a little proper management.

In making a selection at this season, do not be anxious to get stocks that are very heavy. Some few pounds of honey are sufficient to take them through the spring. If too much honey is present, there will be but little room to rear brood; it also indicates that the colony is small, and have consumed but little through the winter. The amount of honey can generally be determined pretty nearly by lifting; the number of bees, by actual inspection—not after they have been aroused, and all in commotion by an accidental jar, but by raising the hive so carefully that they know nothing about it, until the light is admitted directly between the combs till the cluster of bees is all seen. It may on some occasions be necessary to turn the hive over bottom up. The bees of a strong colony will extend through eight or ten combs; if less than four or five, it would hardly be suitable for a beginner at any price. While examining the size of the colony, it would be well to see if there are any mouldy combs, and if any clusters of dead bees are in any part of the hive. A small amount of either will not be a serious detriment, if all else is right, as it is readily removed. Also, if the hive should be an old one, there can be no better time to see if the brood in the comb is free from disease. These examinations are important, and if they cannot be made without disturbing the bees, they may be quieted sufficiently for a partial inspection with tobacco smoke. If a pipe or cigar is used, it will do well

enough; if not, a very good substitute is made by covering cotton cloth eight or ten inches square, with common smoking tobacco one-fourth inch thick, and rolling it up loosely, and fastening with needle and thread, igniting and blowing the smoke among the bees, until they allow an inspection.

Young stocks, and swarms of last season, when they are to be had, are preferable for several reasons, but those two or three years old are not to be rejected, and if healthy, will be just as good for a year or two.

The size is also important. For sections north of 40 degrees, 2000 cubic inches inside is a good standard; yet those two or three hundred inches larger or smaller, ought not to be refused on that account, as swarms can be put into hives the proper size. Very large hives are often cut off to the proper size, but as a beginner would not be likely to undertake it, it is unnecessary to describe the process.

To prepare them for transportation, spread down a sheet, and set the hive on it, then bring up the corners, and tie over the top, or invert the hive, and put over the bottom a piece of muslin eighteen inches square, fastened at the corners with carpet tacks. A wagon with elliptic springs is best for conveying them. In all cases the common box hive should be bottom up to avoid breaking combs. When moved late in the season, they should be set several feet apart. Indeed, they should not be closer together than two or three feet, at any time. A bee-house is objectionable on that account—hives are apt to be crowded. If any alterations are to be made about the yard, the sooner it is done the better. M. QUINBY.

*St. Johnsville, N. Y., 1860.*

*For the New England Farmer.*

### HOW TO MAKE FARMING PROFITABLE.

MR. EDITOR:—There has been a great deal said lately in the *Farmer* and elsewhere, about the unprofitableness of farming. Perhaps you are of opinion that enough has been already written upon the subject; but I should like to say a few words, leaving you to decide whether my speech shall be a public, or a private one.

What is the reason that we find in farming so poor a remuneration for our labor? Is it not, mainly, that we sell off so great a proportion of our crops? It would seem in many cases that farmers believe it the best way to sell all their hay that is fit for the market, and all their oats and corn that can possibly be spared. But, in the long run, is this the most profitable course to pursue? Should not something be kept back and returned to the soil? I was gratified by the stand taken in our Farmers' Club, at a late meeting, by a practical and shrewd, as well as intelligent member. He said, if he could, by feeding to his stock any particular crop, whether hay, mangold wurtzels, carrots, turnips, or grain, obtain a return in milk or meat to the amount of eighty per cent. of the cash value of such crop, he would consider it more economical to so feed it on his farm, than to carry it off to market. This is, it seems to me, sound and safe doctrine. For by thus allowing one-fifth of the produce of the farm as a fund for its fertilization, the fertility of the soil is not only sustained, but increased; and consequently, su-

ture crops are grown with less cost and greater profit. And herein is the dividend paid by investments in the compost heap. They pay compound interest. The more manure, the better crops; and the greater the crop, the larger may be the compost heap. I doubt whether any fertilizer, of equal permanent value, can be bought at less cost than one-fifth of such crops as hay, grain, turnips, carrots, at our distance from the market. In towns nearer Boston, or other markets, it probably pays better to sell most of the crop, and buy stable manure in the city. This answers the same purpose, as it maintains the fertile condition of the soil, and I do not believe any soil can be permanently cropped, with profit, without liberal returns to it in the form of animal manures. M. P.

Concord, Mass., Feb. 29, 1860.

### THE GARDEN.

During the latter part of February the snow pretty much disappeared from this section, and the first week of the present month was so warm and pleasant as to remind us of the approach of spring, with its important labors, duties and enjoyments—indeed, we saw one or two plows in motion, though not perhaps actually “afield,” as those we noticed were engaged upon the warm banks of a wet meadow, preparatory to some permanent improvement.

But how cheerless would spring be without the voice of birds! We returned from a stroll in our garden, one of those pleasant mornings, with a few notes of some of our earliest songsters in our ears, and seated ourselves at a pile of exchange papers. Turning over the pages of the last number of the *Philadelphia Farmer and Gardener*, our eyes fell on the large letters which headed a communication—“Spare the Birds.” The writer states that when he was a school-boy in the lower part of Delaware County, the opening spring was announced by a multitudinous variety of warblers; the mocking-bird, cat-bird and robin; the peewit, wren, and bluebird; the thrush, bobolink, and oriole; the woodpecker, flicker, and bluejay; the lark, kildee, blackbird, and many others. About thirty years after these school-days, he was induced to undertake farming in the same vicinity. He was surprised to miss almost entirely his pleasant birds. During the eight years that he remained upon the farm in this place, he says, “I do not remember to have seen more than one red-headed woodpecker, a couple of bluejays, and a few robins, and they migrating. A few cat-birds and hedge-sparrows or chippies, were all that remained. One robin made its nest in the early spring, and then departed, as also one fieldfare and one peewit; these were all I observed. In the meantime, all the orchards, every one that my boyhood had known and courted, were cleared away, because, as the owners said, worms had attacked and destroyed the trees.” The cause of

this eradication of the birds, he ascribes to the prejudice of farmers against the birds for their fondness for cherries, and to the increase of sporting habits among the young men in the vicinity. In his school-days, there were but three guns in the whole township; as a farmer, he found that an adjoining neighbor, a school-mate, had five “crack” double-barrel guns—one each for himself and four sons—and gloried in their use, by which nothing but chickens, ducks and geese were spared.

But this story of desolation, which we have made as short as possible, has kept us some time from the garden; and if we might not hope to meet these our feathered co-laborers there in due season, we should have little heart ever to return. But what is a garden? The books inform us that Ornamental Gardening is one of the fine arts—based on the love of the beautiful—and is ranked with painting, sculpture, architecture, &c., and that the idea of profit is as foreign to gardening, as a “coach-and-six,” or any other luxury. But this is clearly not descriptive of a New England farmer’s garden,—it smacks of princes, nobles and artists.

In one of our exchanges we find the report of a description of a garden which was given by a speaker on some public occasion, which we hope will be recognized as true to the life by few of our readers. “The garden, sir,” said the speaker, “is a place back of the house where dish-water is thrown; where we have a few hills of potatoes and several hundred—pigweeds.”

The garden, then, is what each one makes it, or allows it to become. It may be an expensive plaything; a repulsive and tangled thicket of weeds and brambles; or a little miniature farm, with its model fields of crisp and tender vegetables, rich fruits and pleasant flowers.

It is now time for every farmer, and for every mechanic who occupies a few square feet of soil, to be thinking what his garden shall be this year.

*Asparagus* and *rhubarb*, if not manured last fall, should have an immediate application, to be leached into the soil by the spring rains.

*Grape vines* and *strawberry plants* that were covered over last fall should be taken up and uncovered quite early, or the vines will be liable to injury. An early sprinkling of guano on strawberries is recommended by some.

*Peas* stand frost bravely, and may be planted early. By filling a trench six to eight inches deep, half or one-third full with horse manure, then filling up with sufficient to prevent over-heating, peas may be advanced a week or two. Plant in double rows a few inches apart, to save brush.

*Onions* may be sown very early. But there is little gained in hurrying most seeds into the soil before the ground is warmed by the sun. Very

much, however, is gained by preparing the ground, and having everything made ready.

*Hot beds* are got up so cheaply, and may be constructed so simply, that none should entirely neglect this means of hurrying forward a few cucumbers, radishes, lettuces, cabbages, tomatoes, peppers, &c., &c.

In the monthly *Farmer* for January, (p. 13,) we published from Liebig's *Modern Agriculture*, an account of "John Chinaman as an agriculturist." John, by his management, has kept the fertility of his soil unimpaired from the time the pyramids were planted. It seems, by that account that he prepares a special manure for seeds, and that he also soaks and sprouts his seeds in weak liquid manure, which promotes the growth and development of the plant, and protects it from insects. May it not be well for American gardeners to try some of these time-honored practices of the Chinese?

Where our gardens are well manured, early crops may often be followed by later ones. By some the ground intended for melons is sown with early peas in rows six feet apart, which will leave space for a row of melon hills, in which the plants are started before the peas are removed; winter cabbages are raised after early potatoes. In fact, a small garden will afford room for large calculations, use for odd moments, and nuts for the mind as well as teeth.

*For the New England Farmer.*

#### CARROT JUICE IN BUTTER.

MR. EDITOR:—In the last *Farmer*, Mr. Everett states that carrot juice put into butter is an improvement, in proof of which he cites the long time it has been practiced, by nearly all the butter-makers of the Bay State. It reminds me of the woman in New York city whose milkman, wishing to be honest, carried her good milk, but the woman denounced it, saying she did not like the dirty yellow scum on it, but preferred the sky-blue article. Now if carrot juice really improves the quality of butter, I am surprised, as well as the South Danvers correspondent. I thought the coloring of butter merely a deception, practiced by those who were preparing the article for the market, the same as stuffing the soles of shoes with wood, galvanizing brass and passing it off for gold, and thousands of other vile deceptions to gull the unsophisticated. But when such a practice is published for an improvement, it is time for us to pause and consider. If there is any improvement in butter by the use of carrot juice, let it be given to the cows. I contend that cows fed on corn meal will color butter sufficiently through the winter, and increase the quantity and quality. I hope some of the farmers of the old Bay State will try it, and give us the result.

*Derry, Feb., 1860.*

DAIRYWOMAN.

REMARKS.—We are happy to inform our lady correspondent, that we heard one of the best but-

ter-merchants in Boston, and a man of the strictest integrity, too, advise a farmer to use a *little* carrot juice in the winter-made butter, as it not only improved the color, but the quality of the butter. The danger is in using too much. "Our folks" make butter through the winter, and although we feed good English hay, beets, mangolds and corn meal, it is difficult to produce the high color in butter which the market demands.

*For the New England Farmer.*

#### INGRAFTING.

MR. EDITOR:—Notwithstanding the best time for cutting scions for ingrafting the present year has past, I think they may be cut the present month with safety. I cut my scions in the month of February, label them, and make a little hollow in the ground the backside of an underground room, or cellar opening to the south, put them in and cover with a coating of oat straw, well dampened. In this way I have had them keep fifteen months in a perfect condition, and ingrafting them at the age above named, have had them grow well. The second spring I have had them plump as when first cut. Nature, in her effort to sustain life, had thrust out a pulp, or bunch on the end cut off, to a considerable size, while the buds have been greatly enlarged. Swamp moss is quite good to keep them. I make my ingrafting wax of tallow, (grass fed best,) one part, beeswax two, and rosin four. For nurseries, make harder. After melting it, I turn it into water, or add water to the composition, and when cold, cut it into pieces, and draw it as wax for shoemaking, until it is quite tough. In using, keep it in warm water, and use tallow on the hands. In fitting my scions I have but two or three buds on them. In making the tenon, I am careful to get a good fit, not quite to an edge on the end, if so, the bark will be more apt to start on the end of the scion, and thus make an imperfect spot. Make the tenon a good length. I observe in setting, to have the inner bark of the scion a little out from the inside bark of the stump. Many scions are lost where there is not a good fit, while nature is making an effort to unite them.

After the scion is inserted, it is in a fixed position, and the stock is continually enlarging, while the mucus or chyle of the wood is forming a union. Hence the necessity of having the scion stand out enough to take the sap when ready to pass. Since I have adopted this method, I have had far less failures, and the union has been more natural, and of course the growth more rapid.

In one instance, I ingrafted a scion into a stock near the ground, with the finishing bud left on, (though I do not approve of it,) which produced the first year a growth of thirty feet; as estimated by two or three individuals. It grew to the height of about six feet. In a number of instances, I have had ripe fruit the first year ingrafted.

I prefer to set two scions where the stump is large enough to admit of it. I think if they both live, the growth is more rapid, and less liable to the evils that often follow. In such cases, I generally cut out one graft, before they crowd each other. When that is done, it should be with the

slant inclining downwards, remembering to spread some grafting salve on the wound so inflicted. I shall beg leave to differ, perhaps, from some of your correspondents as to the time of cutting scions, and grafting. We may agree that the best time is, when the bark adheres most closely to the wood, but at what time that takes place we may differ upon. I contend that while the moon is new, or first quarter, the bark slips more readily. I have often heard the remark made by those that make a business of peeling bark. I do not contend that the moon affects the bark, or sap of a tree, but that the sap circulates more freely about that time, hence the propriety of performing all the surgical operations on fruit trees "in the old moon."

C. A.

*New Haven, Ct., 1860.*

## EXTRACTS AND REPLIES.

## SOIL FOR AND CULTURE OF CARROTS.

I wish to inquire what soil is best adapted to raising carrots, and how it should be prepared? What the time and manner of sowing, the best kind, and how much seed to the acre, and whether a top-dressing of any kind would be beneficial?

*Bath, N. H., 1860.*

G. H.

REMARKS.—Land suitable for Indian corn will produce carrots—that is a granite, or sandy loam, and they will do well on a clay loam if it is under-drained. But land for carrots, as for corn, requires high manuring. It should be plowed a foot deep, and plowed two or three times, pulverized so as to be light and fine, cleared of all turfs and stones, and the seed sowed in drills about eighteen inches apart as early in May as the ground is sufficiently dry and warm. A top-dressing of fine manure would be good, though a heavy dressing of green manure *plowed under in the fall* would be better. The orange carrot is generally raised, but the white will yield a larger crop. About four pounds of seed are required for an acre, though half that quantity would be ample if all the seed could be properly distributed. There is no mystery or difficulty whatever in raising a carrot crop. Make the soil deep, light and rich, and allow no weeds among the plants, and you will get a crop.

## GREEN CROPS AS MANURE.

What is the best green crop with which to renovate an old pasture?

How much seed should be used to the acre for this purpose?

What can Hungarian millet be procured for a bushel, and how much should be used upon an acre?

E. HINCKLEY.

*Hyannis, March, 1860.*

REMARKS.—Clover is generally esteemed the best plant to use as a green crop to fertilize exhausted lands. Under favorable circumstances it fills the soil so full of roots that an experiment made by a friend showed that after cutting a heavy crop from the surface, there were some seventy tons of roots left in the ground! Clover should

not be plowed under in a *green* state, because fermentation very soon ensues, throwing off the sugar and starch which the clover contains, and leaving little but the coarse and comparatively innutritious fibre. Cut it, and, when it has wilted a day, plow it under; the process of decomposition is then slow, and nothing is lost.

## CULTIVATION OF THE CRANBERRY.

I have a piece of land containing about one-fifth of an acre, which I consider very well adapted to the cultivation of cranberries. It is now covered with coarse grass and cranberry vines; it is bounded on two sides by a brook, which would be serviceable for flowing. Will you please inform me through your columns the best course to pursue to bring it into the cultivation of cranberry vines, and also the time of the year in which to commence operations. WALTER RICKETSON.

*New Bedford, 1860.*

REMARKS.—See "Eastwood on the Cranberry," for full directions.

## TO KILL VERMIN ON CATTLE OR FOWLS.

To kill vermin on cattle and fowls, take common lamp oil, and rub it in well back of the ears and all down the back; do this once a week, and no vermin will trouble you. It is safe. Tobacco will kill lice, but should be used cautiously. Rub lamp oil on the back of the head, and under the wings, and over the posteriors of any fowl once a month, and it will clear out all lice.

A READER.

*Billerica, March, 1860.*

## MUCK AND ASHES.

Some of our farmers are trying the experiment of mixing muck and unleached ashes together for a fertilizer. Ashes cost here 25 cts. per bushel. Potash may be obtained by the barrel for about 64 cts. per lb. Would potash answer the purpose of ashes at less expense?

INQUIRER.

REMARKS.—We have known potash dissolved and sprinkled upon old and well pulverized muck, and used as a fertilizer with good effect. Sometimes damaged potash may be purchased for three or four cents a pound—but at the common prices by the cask, we have no doubt it would be cheaper than ashes at 25 cents a bushel, unless the ashes furnish something beside the potash they contain.

## POTATOES.

Mr. A. F. BICKFORD, Danville, N. H., writing us about raising potatoes, says he uses the root end of the largest potatoes he has, only four eyes in a hill, and uniformly gets good crops; uses no manure but leaves and muck sprinkled with ashes.

In raising onions, he sows ashes upon them as soon as they are up, and as they grow, scatters pulverized hen manure over them in wet weather. In dry weather he soaks the hen manure and sprinkles the onions with the solution once in each week.



## SURFACE MANURING.

Much has been said of late of "surface manuring." I do not fully understand the meaning of the term; or perhaps I had better say, I do not understand the exact method of applying manure in that manner. I suppose it means something different from the "top-dressing" of grass lands, but exactly what I do not know. Will you explain?  
 QUERIST.

REMARKS.—What is the best way to apply manure, is a question upon which there is much difference of opinion, and in the discussions which take place upon it, the words "surface manuring" quite often occur. We suppose the terms are not confined to what is generally understood by "top-dressing," but whether manure should be kept near the surface, or plowed under from three to ten inches. The opinion is gaining ground among many good farmers, that more benefit is derived from manure kept within four inches of the surface, than when it is covered deeper.

## SPONTANEOUS COMBUSTION IN HAY—VEGETABLES.

I noticed a communication in the *Farmer* from "Omega," of Roxbury, and "Mr. G. Whitney," of Vermont, on "Spontaneous Combustion in Hay." Some years ago, when in St. Johns, N. B., I remember an instance of hay becoming so heated as to ignite the timbers and burn to the depth of three-fourths of an inch; by removing the hay and remaking, it kept perfectly.

Permit me to suggest the use of a corner in your paper for the assistance of novices in gardening; although Mr. Bridgman's book is intended for that purpose, it is not adapted to our climate; by stating the time when to plant, and when to transplant, the different kinds of vegetables, you will contribute useful information to many of your

## SUBSCRIBERS.

REMARKS.—Will you "fill a corner" with this information yourself?

## GUANO FOR RYE—RYE WITH BUCKWHEAT.

Will you permit me to inquire whether Peruvian, or in fact any other guano, can be profitably used as a top-dressing for rye? If so, will you give the best mode and time of application, and the amount needed on a light gravelly loam which will best ensure success?

Also, whether rye can be sown at the same time and with buckwheat, with a reasonable prospect of a good crop the next season? M.

*Wilbraham, March, 1860.*

REMARKS.—Guano, at the rate of 250 or 300 pounds per acre, sown as soon as the ground is thawed to the depth of four inches, or as soon after as is convenient, will usually bring more than paying results. Try a portion of the field with American Guano, as it is called. It is pulverized ready for use, and can be purchased for \$40 per ton.

We have never known rye sowed at the time of sowing buckwheat, and are inclined to think it would make too rank a growth the first season.

## RINGWORM OR TETTERS IN CATTLE.

Eight weeks since, one of my yearling heifers was attacked with ringworm or tetter around the eyelids. The eruption has continued to spread in circular form to the diameter of six inches. The pustules now begin to form about the roots of the horns, and also about the muzzle.

My whole stock of thirteen head of from one to three years old are infected now with the same disorder, in its first stages. Can this disease be subdued or cured, or must it be left to run its own time? An early notice will be duly appreciated.

CHARLES S. WELD.

*Damon, Me., Feb. 27, 1860.*

REMARKS.—We have had no experience with this disease, and find nothing of it in the books under the term "ringworm" or "tetter." We hope some one having facts will reply.

## USE OF GUANO.

Will the editor of the *Farmer*, or some one who has had experience in using guano, inform me whether it is profitable or not? If so, in what way should it be applied, and the quantity to the acre?

J. G. G.

*Shelburne Falls, Mass., March, 1860.*

REMARKS.—Guano is profitable when used under favorable circumstances, and when it is purchased at a fair price. We doubt whether our common farmers can make it profitable at \$60 a ton. From 50 to 500 pounds are used to the acre, sometimes broadcast, and at others composted with muck or loam. Do not use it until you can have a better knowledge of the condition under which to employ it, than we can impart in these brief lines.

## TWO LARGE HOGS.

Mr. JOHN BATES, of Danversport, has two very large pigs, two years old next month. The girth of the largest is 6 feet 7 inches; length from tip of nose to extremity of body, 7 feet 11 inches. The girth of the other is 6 feet 6 inches, length 7 feet 11 inches. They are small limbed, and perfect patterns of good hogs, and seem to be as thrifty now as at any former time. Good judges estimate that they will weigh, when dressed, 750 lbs. each!

*Danversport, Feb., 1860. B. D. WILCOX.*

## ORCHARD GRASS SEED.

Having seen the orchard grass highly recommended for hay and pastures, I should like to inquire where the seed is to be had, at what price, and if it will do to sow it with harrowing it in on land that was sown with rye last fall, and if so, at what time in the spring should it be sown?

*Palmer, Mass., 1860.*

A. B. D.

## HAY-CUTTER AND PUMP.

Please inform me what is the best hay-cutter now in use, taking into account the cost, ease of operation, and durability, for all kinds of fodder.

Also, the best pump for farm use for a well 40 feet deep.

ALBERT EMERSON.

*Haverhill, Mass., 1860.*



## CHICORY, OR SUCCORY.

The chicory, or succory plant, is quite common in the eastern part of Massachusetts, and for aught we know, all over New England, and yet but few people know its name or uses when they see it. It is a stout, branching plant, when full-grown, standing two to three feet in height, has beautiful sinuate leaves and bright blue flowers, and a sort of flaunting, care-for-nothing air, which makes it quite attractive. It loves warm, rich spots, and in such places will throw its tap-root so deep and strong into the ground, that more than the strength of a single man is required to pull it out.

It has been extensively grown in Belgium, Holland and Germany, and as a cultivated variety was brought into notice by the late Arthur Young, as a forage plant. The root is white, fleshy, and yields a milky juice. This is dried, roasted, and used as coffee, and is now allowed by the excise in England to be mixed and sold with coffee. The reader has quite likely often used it at his own table, when he supposed his cup was filled with a decoction of the pure Java or Mocha! The *English Quarterly Journal of Agriculture* says:—"No plant cultivated in this country will bring the cow-feeder nearly an equal return with the chicory."

We know the plant well, however, and advise every farmer who finds it growing on his premises, to eradicate it as fast as possible. If it yields a large quantity, the quality is bad, for the plant is a coarse, rank grower, takes possession of the whole land, and the forage is bitter and unpalatable, and will give the milk of cows an unpleasant

taste. The succory is gaining ground in this region, and needs careful looking after. A species of it called *Endive*, or *Garden Succory* is extensively cultivated among us as an early salad.

When the root of chicory is to be used as coffee, it should be cleaned and put into the oven after the bread has been taken out, and allowed to remain until cold. Continue that process until the root is sufficiently brittle to be ground, and then mix a fourth or more with coffee.

The root is also used medicinally for chronic affections of the stomach, connected with torpid liver. Figure 1 represents the whole plant, and in bloom. Figure 2 is a separate head of the flower.

**DISEASE AMONG HORSES.**—A fatal disease, called by veterinary surgeons "paralysis of the throat," is raging among the horses in one of the most extensive stables in Brooklyn, N. Y. So far, eight have died, and several more are affected, and expected to die, as no remedy, or even stay to the disease has yet been discovered. The first symptoms are an inability to drink, and entire incapacity of the throat to perform its natural functions.



FIG. 1.

FIG. 2.

## HAY REQUIRED PER HEAD.

I perceive it was stated at a late meeting of Legislative farmers, by one gentleman, that he used ten pounds of hay, per head, with oil-cake, roots, &c., for each animal. I am informed by another gentleman that the quantity of hay mentioned is not more than half as much as should be given.

For myself, I do not know, as I never weighed the food for stock, but I am inclined to believe the practical man is nearest right. Much will depend upon the quality of the hay; if it is badly cured and worse housed by heedless laborers, perhaps ten pounds is as much as the animal can be induced to swallow. But if properly cured, I am confident that twenty-five pounds per day will not be more than is necessary for a cow that is relied on for milk, or in other words, that it will take a ton and a half of hay to carry a cow through from November 1 to April 1. What say you to this?

J. W. P.

South Danvers, March, 1860.

**KING PHILIP CORN.**—We are not able to inform "G. W.," South Kingston, N. H., where he can obtain the genuine King Philip, if not at the seed stores.

*For the New England Farmer.*

### A WAIT FROM KANSAS.

*Prairie Lands—Western Life—Steamboats—Prospects, and Corn-Dodgers.*

As the ceaseless flow of the ocean, as the tide of emigration has been, and still continues westward, civilization walks closely after the footprints of stupid, indolent barbarism, and scatters in her march intelligence, refinement and wealth. I could not help noticing the fact, as business called me out into the territory a few days ago, and I remarked the improvement and comfort following the wake of emigration. Many comfortable cabins and pleasant adorning cottages are being erected upon the soil but lately occupied by the rude hut of the red man. Thousands of acres of rich prairie land are being surrounded by rail fences, all "saddled and bridled" to protect the crops from the cattle which are allowed to run over this great pasture. Steamboats laden with wealthy freight and noble humanity, are plowing the waters, where a few years ago the lone Indian dared hardly venture with his bark-canoe or "dug-out," lest it should be snagged, or wrecked upon a sand-bar, which obstructions are very prevalent in many of these western rivers. But the readers of your monthly, who have always had fine farms, and nestled beside comfortable, loving firesides, reaped the benefit of good books and intellectual society; enjoyed the privileges of lectures, concerts, and those amusements which only a refined society can countenance, can never realize, mentally, the heroic self-denial of a western emigrant, or the discomforts and hardships of a pioneer life. Where there is but little social good existing in the woods and upon the prairies of the western world, unless the pioneer possesses great moral strength and high self-respect, he is soon prevailed upon to take up with the social evils existing, conspicuous among which are whiskeyology and theology, the former leading to gambling, fighting, and every species of debauchery, and the latter to a low, grovelling, narrow-minded sectarianism.

Winter has "broken his back-bone," and we are glad. A few days ago, a dazzling robe of white was thrown over the bosom of mother earth, but the relentless sun is wearing it off again. The prairie grass is deftly shaking off the weight which bears it down. The river is breaking from the icy arms of winter, and rushing onward to the embrace of its mother ocean. Only among the forest aisles does it seem the most desolate, where the trees throw their naked arms up against the sky, and creak a mournful dirge for their green robes, and the warblers that hid and sung among their branches.

Suffering has been great this hard winter, especially among the poorer classes. Kansas has not been free from the closeness of suffering's gripe, but we make the best of it, and if we get corn-dodgers and pork enough to satisfy the cravings of nature, we feel contented, and are waiting patiently for the opening of navigation and the rush of eager aspirants for wealth, towards the golden bait existing at the Rocky Mountains. Of course, as they will start from the river towns, so that many will reap the greatest harvest at the beginning of the journey.

But those persons in Kansas, who have experienced the most hardship this winter, are mostly those who have laziness existing in their bones, and rather than work, will prowl around their neighbors' houses to steal. Why, not far from here, I know a man so lazy—and he has a claim, too—that when he gets hungry, he will steal one ear of corn, and grind the corn between two stones, to get sufficient meal for his wife to make a corn-dodger with, then they eat it and are happy. Certainly, they do not "live to eat," but only "eat to live," and they have great faith in the promises conveyed in the sixth chapter of Matthew.

Doubtless, some of the notable housewives of the east would like to know how to manufacture a "corn-dodger." Take any quantity of unsifted meal, and stir it thick with cold water. Put nothing else in. Draw out upon the hearth some hot ashes, make a hole in the middle, and pour the wet meal into it, and flatten it down to an inch in thickness. Cover it over with hot ashes and coals, and let it bake. The ashes keep the sweetness of the meal from evaporating. Now that is what I call a simple and easy way of making a cake, and it is excellent another way. It makes first-rate brick-bats, not easily broken. Try it, ladies, and always keep one in your pocket to defend yourselves both from the assaults of hunger and of man.

But come along, gentlemen, and bring your implements of industry. We want you, and "Uncle Sam is rich enough to give us all a farm," when the homestead bill is passed, and if it don't, we'll buy a farm.

"We'll sweep the prairies, as of old  
Our fathers swept the sea,  
And make the West, as they the East,  
The homestead of the free!"

Kansas is the geographical centre of the United States, and out at Fort Riley is the exact centre, and there several thousand acres of land are laid off for the possession of the United States. The river will always be a public thoroughfare, and river property always valuable. When these stringent times get loosened and men can hold up their heads again, when Kansas revives entirely from the severe struggle for freedom, and this prostrating financial crisis, then the money will fly, fortunes will be quickly made, and down-east visages and sober, undecided gaits will be "no-whar, I reckon."

SUSIE VOGL.

*Summer, K. T., 1860.*

**MINERAL MATTER ESSENTIAL TO THE GROWTH OF ANIMALS AS WELL AS PLANTS.**—Liebig, in his "Letters on Modern Agriculture," says, "Were it possible for a plant to grow, flower and bear seed without the co-operation of mineral matters, it would be utterly valueless to man and animals. A dog will die of hunger in the presence of a dish full of raw or boiled white and yolk of eggs, in which is wanting one of the substances most important for the formation of blood. The first trial teaches him that such food is as inefficient as a stone, for the purposes of nutrition."

**GILLYFLOWER SCIONS.**—We cannot inform "Inquirer" where he can obtain the scions he inquires for.

*For the New England Farmer.*

#### EXPERIMENTS—A NEW MOVEMENT.

MR. EDITOR:—The following subjects for experiment were recently given out in the Concord Farmers' Club. The results will be reported the next winter.

To J. B. FARMER—Winter and spring barley to be sowed on the same kind of land, and the crops compared. Mr. F. sowed a piece of ground with winter barley last fall. To the same—Fowl meadow in comparison with red-top and herds-grass.

To WILLIS BEAN—Plow the whole field ten inches. On one portion spread the manure on the sod, and plow under. On another portion cover the manure five inches. On another portion three inches; and note the result on hoed crops and on the grain and grass following.

To JOSEPH D. BROWN—Seeding to grass with rye, oats, wheat and barley.

To MINOT PRATT—Soiling cows during the months of June, July, August and September. To keep an exact account of cost in extra labor, &c.

To N. H. WARREN—Liquid manure as compared with compost for corn.

To J. W. BROWN—Cooking Indian and oil meal for milch cows in comparison with the same used raw.

To A. H. WHEELER—The culture of roots, with the rows at different distances.

To E. WOOD, Jr.—Improving pasture land by the use of various fertilizers.

To HIRAM JONES—Cultivating squash and other vines by the use of different manures.

To WILLIS BEAN—Warm and cold drink for cows, alternating several times, two weeks at a time.

To HIRAM JONES and JOHN BROWN, 2d—Poultry—the best feed to produce eggs.

To JAMES P. BROWN and DANIEL TARBELL—Top-dressing with mud, impregnated with sulphur, to be applied in different quantities.

To MINOT PRATT—Corn and potatoes in alternate rows, and carrots and beets in do.

To SIMON BROWN—Cranberries on high land.

To CHARLES A. HUBBARD and CYRUS JARVIS—Top-dressing grass land in autumn with green manure and with fine compost of equal value; and top-dressing and seeding as a means of improving and preserving the qualities of grass on low land without plowing.

To E. W. BULL—Special manures—their effects upon vegetation and comparative value.

To F. E. BIGELOW—Barn manures for cultivating trees in grass land.

Other experiments were suggested, among which were the comparative productiveness of different varieties of corn—Fallow tillage as a means of improving the soil, &c.

I send you this list as a suggestion to other clubs, and to farmers who do not belong to any clubs, to try these or other experiments, and carefully note the results.

Yours truly, J. REYNOLDS, *Secretary.*

TALL GRASSES.—Mr. THOMAS GORDON, of Biddeford, Me., handed us some grasses the other day of a most extraordinary character, consisting

of fowl meadow, herds-grass and blue-joint. The fowl meadow was seven feet high, the blue-joint six feet nine inches, and the herds-grass six feet and six inches. These grasses grew upon his farm at Biddeford, and are the natural product of his low lands, such a product as might be harvested on thousands of acres in this State, if unjust and odious monopolies did not permit mill-owners to drown and starve out large tracts of the best lands we have.

Mr. Gordon states that he has plowed and seeded swale land with the fowl meadow grass, and that it thrives well upon it. He frequently gets six tons of well made hay to the acre—hay that is worth three-fourths as much as the best English grass. He gathers the fowl-meadow seed by hand, stripping it from the heads into a broad open vessel. The fowl meadow and blue-joint have broad leaves, and their stems, though large, are not so wiry and hard as those of the herds-grass.

*For the New England Farmer.*

#### DAIRY PROFITS.

MR. EDITOR:—I give you an account of my dairy the past year. April 1st, 1859, I owned one cow, 5 years old, worth \$40; bought a heifer 2 years old, for \$27. Account stands as follows:

	Dr.
To interest on capital.....	\$4.02
To pasture for season, at \$5 each.....	10.00
To wintering 2 cows, at \$18 each.....	36.00
To pumpkins, &c., in fall.....	2.00
To 12 bushels carrots in winter.....	2.00
To pasture for 2 calves.....	2.50
To 1 owl oil meal.....	2.00
	\$58.52
	Cr.
By 520 pounds butter, at 79 cts.....	\$60.80
By increased value of heifer.....	10.00
By 2 calves last fall.....	16.00
	\$86.80

Beside this, we used all the milk we wanted in a family of four, which, with the milk for the pigs, I think well paid for making the butter. I shall keep 4 cows the coming season, and you shall have the figures at the end of the year.

I wish to inquire which is the best way of feeding corn and other grains to hens, whether whole, ground, or ground and boiled?

GREEN MOUNTAIN BOY.

Cummington, Mass., 1860.

*For the New England Farmer.*

#### HORSE PITCHFORKS.

DEAR SIR:—I notice in your issue of the 18th inst., an inquiry in regard to horse pitchforks. I would say in reply to that inquiry, that I have used a fork of that kind for four seasons past, and with some experiments made myself, and opportunities for observing the working of other kinds, have come to the conclusion that the one I use is the most simple, cheapest, and most efficient.

The principle upon which it operates is the same as the common hand fork; that is, the power is applied to the head, or near the tines, while

the operator holds it by the handle, or when beyond his reach, by a cord attached to the handle, and is thus enabled to discharge the hay at any point above the beams desired. The other necessary appendages are a long rope, such as every farmer should have; one single pulley block to be fastened to the rafters through which the hoisting rope passes, and also another pulley block at the door post to bring the draft at the proper angle on the horse; the fork can be used in any barn of ordinary size. I have used this fork for stacking hay; a stiff pole being necessary, and two light guy ropes running in the opposite direction from which the horse draws.

I consider pitching hay by horse power as one of the economies of farming, and the fork as an appropriate accompaniment to the mowing machine and horse rake.

I have shown the operation of this fork to Mr. Alzirus Brown, of Worcester, Mass., manufacturer of mowing machines and wheel horse rakes, and I understand that he will build some of them this season, putting them at five dollars each, and if well built, it is cheap enough.

North Salem, Feb., 1880. L. G. KNIFFEN.

#### LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The tenth meeting of the series of the Legislative Agricultural Society was held in the Representatives' Hall on Monday evening, and was very well attended. Col. HEARD, of Wayland, presided. The subject for discussion was, "*Manures—what are the best kinds, and their application?*"

Mr. HOWARD, of Boston, was the first speaker. He said it was a subject he had not lately given much attention to, yet it was one which interests farmers more than any other. It has been truly said that muck was the mother of money, [the meal chest. Ed.] and he was sorry to say that there had been too little attention given to manures, which were always a source of wealth. In Ohio, the idea had prevailed that the soil was inexhaustible, and farmers there had gone on year after year neglecting manures, until they could get but miserable crops, and now the soil has so deteriorated that they are going further West, where they can pursue the same course. From this it had been asserted by Mr. Fay at a former meeting, that American agriculture was a system of devastation. He spoke of what England would have been had she pursued the same system, and compared it with her present agricultural prosperity. Mr. Howard said that it was the duty of every farmer to save all the excrement, both solid and liquid, on his farm, as also that in his household, and, if this were done, there would be no deficiency in our State. In some cases lime might be used as a fertilizer, but he thought east of the Connecticut Valley it would not do well. Guanos

of some kinds, and bones, the latter particularly, had been used with excellent effect, and now they constitute a material element in our manures. He spoke of superphosphate of lime, saying that he had heard various reports as to its effects, but he thought if the pure article was obtained, it was excellent as an auxiliary. He thought the best course for farmers would be to experiment carefully with the different kinds of fertilizers, and by carefully noting the result, arrive at what would suit their land the best. Mr. Howard also spoke of various phosphates that had been introduced here and in England, but expressed the opinion that none were of the value of those from the barn-yard.

Dr. LORING, of Salem, said we had neglected the study of the composition and use of manures, while in Europe the utmost care has been bestowed, assisted by science. He doubted whether any farmer here could tell the best method of manuring corn, root crops or grain. We are, said he, too much in the habit of using the manures made on the farm as our fathers used them in their day, without taking the trouble to improve upon their practice, and thus gain the knowledge to make us prosperous. There are many places in this State, where the contents of the sink-drains, water courses, muck beds, &c., are neglected, and this placed farmers who had none of these advantages and who were in less favorable localities, under a difficulty. It was a question in his mind whether our farmers could afford to import foreign manures. There were farms located on the sea-coast, the owners of which used kelp and other sea weeds, which were very good fertilizers, but he did not have this benefit. He had made up his mind to manure his farm from its own products, and he had stocked it with this object. He thought it was better to do this than to pay the expense of teaming, &c. He considered that, for top-dressing on grass lands, nothing was better than farm-yard manure, well rotted and well composted. He hauled his muck in August, and put a good layer of it on his cellar floor, then a layer of manure, then another layer of muck and so on, alternating. His cellar was 100 ft. long and 32 ft. wide, and into this he carted from 100 to 130 cart loads of 36 solid feet of muck, and in wet or stormy weather he had his men turning it, so that when it went on the grass lands in January, it is thoroughly rotted, and this he found increased the grass crop from 50 to 75 per cent. the first season. For roots he used the same manure, and backed up the furrows in plowing, as he found this was good to prevent weeds, and to pulverize the soil, while by plowing twice, and harrowing and raking, it thoroughly mixed the compost with the soil.

In relation to applying green manure, he said

he thought that he could get 50 per cent. more crops by manuring with well rotted and pulverized compost than with green manure, and he thought it would be well for farmers to think of this. He thought ashes and other fertilizers of a similar description were good for top-dressing, as was also gypsum, but there was nothing that he was aware of that was so valuable to the farmer as the manures produced on his own farm.

Mr. STOUGHTON, of Gill, differed with Dr. Loring in regard to the application of green manures to grass in spring, and said that he had been led to do so from practical results. He stated that he had got five tons of fine hay per acre from his land by manuring with green manure, while he had manured a portion with a compost he had prepared from the compost of an old pig pen mixed with manure and put it on thick in the spring, and the result was, he did not see any difference between the crop from that and a portion that had not been manured, while that he had manured with green manure gave two tons per acre in a bad season. He said he did not see the gain in carting muck to the barn-yard and then back again to the field, unless it was valuable as a manure in itself, without it was to dry it, and so have it absorb the liquids that would otherwise run away. He thought plaster and ashes of great service, and he considered the former returned 25 per cent. profit on the money paid for it, but he had found nothing to pay so well as gathering all the vegetable matter about his farm, using clean, dry oak and maple leaves for bedding for his cattle and swine, and thus converting it into manure. He alluded to a neighbor of his, who, the past season, made 150 to 200 loads of good manure by keeping pigs, and from the sale of his pork and shoats he had cleared \$60 more for them than they cost, and this he reckoned would pay for their feed, thus leaving the manure clear profit. He said he used from 20 to 25 loads of green manure to the acre for grass land. He had used guano, 400 lbs. to the acre, and plowed it in, and it did well in a plain, sandy soil, and he, sowed the same piece with rye, and got a good crop, but the next year he again sowed with rye, and he never had so poor a crop, and from this he considered guano was not a profitable fertilizer to him.

Dr. LORING said he thought the last speaker forgot the fact that muck was vegetable matter, judging from his remarks in regard to it, yet he admitted that he had never made the experiment as to whether it would act as a fertilizer alone. He used it as an absorbent, and to prevent the manure from heating. He would like to see any man spread a load of green manure, and thought from the almost impossibility of doing this, that the manure used by Mr. Stoughton had been par-

tially decomposed. He contended that there were gases and other fertilizing properties formed and retained by using the manure thoroughly rotted, which were not obtained by using it in a green state.

Mr. STOUGHTON replied, that he used manure wholly unrotted, and he thought that a large proportion of the muck used had been so far rotted that all the fertilizing properties had been taken out of it.

Mr. FAY, of Lynn, said he thought the question to be decided was the *economy* in using manures, and not the effect. He agreed with Mr. Stoughton as to the good effect of the application of green manures, but he thought the majority of farmers would prefer them a year old, if they could get them. He thought the properties of manures were more difficult to lose than is generally supposed. He said he had tried green manure for top-dressing in the spring, and by its side the composted manure, and he saw very little difference in the crops, but mowing and raking the land thus manured showed a considerable difference, as the former would cost to mow something like \$1.50 per acre, while the latter by machinery, would not cost more than 25 cents. Sheep manure had been spoken of by Mr. Stoughton, but this, Mr. Fay said, could not be composted. He thought there were scarcely two muck bottoms in the State alike, and while some were valueless, others were exceedingly valuable. He had a great quantity on his farm, but it was worth nothing, while that of Dr. Loring might be excellent.

The article of bones was then considered, and the speaker said it was a disgrace to the farmers of Massachusetts, that so many thousand tons were exported from Boston to enrich the fields of England. For the turnip crop, particularly, this was excellent, and it was precisely known how much such crop required to reach the highest state of productiveness, viz.: 16 bushels to the acre, and it had been fully demonstrated that even 25 or 50 bushels would produce no more, and this was proved to be the very best manure for this crop. Phosphates, he said, may be used as stimulants, but barn-yard manure was the foundation of all fertilizers.

Mr. WETHERELL, of Boston, spoke of English opinions of the relative merits of green and composted manures, showing that the green was preferred. He also alluded to other fertilizers not named by other speakers, as also to the experiments made in England in raising crops without manure by constantly turning the soil, thus enabling it to absorb the nutritive properties in the air, and the success that had thus far attended this method.

Col. HEARD, of Wayland, said, in his neighborhood it was the custom to apply the manure in

the green state, and then follow on with grass, and then apply again green mixed with sand or muck. He cut his corn as early as possible, and after taking it off the land in the fall he sowed grass seed, which he thought was better than sowing it in the Spring. Very little top-dressing was used in his section except on the low grass lands. Wool waste, worth \$8 per cord, was considered profitable by some farmers, but he thought differently. The practice was to apply it as a compost, or to sow it and put some in the hills with potatoes.

Mr. SPARHAWK, of Charlestown, spoke of the chemical properties of the various manures, but the time having arrived for adjournment, it was moved by Mr. Stoughton that the same subject be continued for discussion at the next meeting. This was carried unanimously, and the meeting adjourned.

*For the New England Farmer.*

#### PLOWING IN GRASS.

MR. EDITOR:—I noticed in the *Farmer* of Feb. 11, an article on improving the soil by plowing in a crop of clover. As that does not agree with my experience I will give another view of green crops for manure.

Several years ago, having a piece of ground that was worn down, wanting to improve it, and being short of manure, the last of June, the whole crop of grass was plowed in well, at about 1 ton per acre; during the season, as the weeds came up, they were plowed in; this was done three times.

The next spring it was spread with a coat of barn-cellar manure and planted with corn, hoed three times, and a poorer piece of corn I never raised! while on a piece adjoining, equal in every respect, that had no grass plowed in, was a good crop of corn.

In June, 1858, wanting to sow a little more fodder corn, I broke up a piece that was taken off from an old pasture adjoining a piece of mowing that bore heavy grass; the old fence being moved, left a bog, running anglewise the piece; to make it square, I plowed about one-half of each, mowing and pasture; the grass on the mowing when plowed was knee high, which was all turned in, and the whole was spread with manure and corn sowed in drills; I ran the cultivator between the rows, but did not hoe it; the corn on the old pasture land grew 8 feet high and over, while the corn on the mowing land never grew more than 2 feet, and was yellow and sickly all the season. Last year I sowed the same with corn, with the same result.

Such is my experience in plowing in grass for a fertilizer.

W. E. D.

Harvard, Mass., Feb. 13, 1860.

"AN OLD MAN, *Hebron, N. H.*"—If the writer of the article signed as above will send his remarks to the writer of the article dated at North Groton, N. H., we think he will accomplish his purpose better than by publishing the criticisms he has sent us.

*For the New England Farmer.*

#### STOCK RAISING.

MR. EDITOR:—Your Chelmsford correspondent, "T. J. P.," in an article published in the *Farmer*, after figuring the cost of a calf one year old at \$22, gravely asks the question, whether he shall sell the calf at a positive loss at that age, or keep it longer, with the certain prospect of a greater loss? The fact is, if there is any profit in raising stock, it consists in raising animals to maturity; good cows for milk and good oxen for labor; the best of which will pay the expenses of raising, thus giving their carcasses a profit to the owner. The profit or loss in every case will depend on the intelligence, or want of it, in selecting the animals to be raised. Accidents will sometimes happen, and unavoidable losses of animals occur, and the most matured judgment may make a wrong selection, from the fact that there is so great a want of uniformity in our common neat stock; but all these causes combined, though they may affect, will not consume the aggregate profit of the business. In this section, it is generally considered more profitable to raise cows than oxen, and some of the shrewdest farmers buy their oxen at four or five years old, keep them a few years, and turn them off with greatly increased weight; but it is evident somebody must raise them, and I propose to take two calves and raise them to oxen, and will state the case as fairly as I am able. We are obliged to let our cows calve to keep them in milk, spaying cows not having become general, nor is it likely to become so. I will therefore enter,

#### TWO CALVES.

Ca.

To 12 qts. of new milk per day, 5 weeks, at 2½¢ per qt. . . . .	\$10.50
To 12 qts. of skim milk per day, 5 weeks, at 1¢ per qt. . . . .	4.20
To 100 lbs. of hay . . . . .	.60
To 5 months pasturing, at 75¢ per month . . . . .	3.75
To 2 tons second quality hay, corn, stover, straw, &c., at \$8 per ton . . . . .	12.00
To 10 bush. carrots, at 16¢ per bu. . . . .	1.67
To barn room, &c. . . . .	2.00

Cost at the end of the first year . . . . . \$34.72

To 5½ months pasturing, at \$1 per month . . . . .	\$5.50
To 2½ tons of mixed hay, at \$7 . . . . .	17.50
To barn room, and small, nameless expenses . . . . .	2.00
To interest on the first year's cost . . . . .	2.08
To 15 bu. mangolds, at 10¢ per bushel . . . . .	1.50

Cost at the end of the second year . . . . . \$63.80

To 5½ months pasturing, at \$1.25 per month . . . . .	6.82
To 3 tons of hay, at \$9 per ton . . . . .	27.00
To barn room, &c. . . . .	3.00
To 15 bush. carrots, at 16¢ . . . . .	2.60
To interest on the cost . . . . .	3.79

Cost at the end of the third year . . . . . \$106.41

Ca.	
By labor . . . . .	\$10.00

Value of labor deducted from the cost . . . . . \$96.41

To pasturing 5½ months, at \$1.50 per month . . . . .	8.25
To 3 tons of hay, at \$12 per ton . . . . .	36.00
To 5 bush. meal, at \$1 per bushel . . . . .	5.00
To barn room, and other expenses . . . . .	4.00
To interest on the cost . . . . .	5.78

Cost at the end of the fourth year . . . . . \$155.44

Ca.	
By labor . . . . .	\$25.00

Value of labor deducted . . . . . \$130.44

Our oxen are now four years old, and are capable of earning their living until they are five years old, when they may take the place of older cattle on the farm that are fatted for the market, and with ordinary chances afford a clear profit over all



expenses of \$25 per year, for two, three or four years, as the judgment of the owner may determine.

I have traced these figures out with direct reference to the profit, being convinced that raising cattle in this way, commencing with a poorer and changing to a better quality of fodder, is attended with better results than the reverse, and would much prefer to give to young cattle the same value in roots than grain.

In looking over the figures, many probably will be surprised at the cost of raising cattle even in this cheap way, and will not fail to detect that, up to their fourth year, steers will not generally sell for what they cost, especially at the price of beef; for, by rapid transportation, the West is brought into competition with us, in this respect. But we can profitably raise what cattle we need, and every year they are kept after they become cows or oxen, they will reduce the cost of raising to that point, if rightly managed. "Aye, there's the rub," for many a man will suffer his oxen to eat his hay through the winter without returning an equivalent in labor, much less reducing the cost of raising them. Such men can find nothing to do, when the fact is, they are too lazy to work. These are they, who really "scab the craft." Good stock, of all kinds needed on the farm, will pay for raising, and is not accountable for individual management. How many farmers pursue their business in the same manner that Mr. Pinkham reasons upon; oftentimes leaving some other business, with the mistaken idea, that money can be rapidly made by farming without hard labor. They commence with considerable zeal, but being of an intellectual turn of mind, and becoming tired with what seems to them the hard and monotonous labor of the farm, they find the figures against them in their initial operations. In other words, their acre of corn has brought them \$10, and their calf \$5 in debt, consequently it will not pay to raise the calf nor continue the cultivation of the acre of land; they, therefore, decide to quit the business, and generally become men of change. H. KIMBALL.

*Kennebunk, Me., Jan. 28, 1860.*

ERRATUM.—In a former communication, after the year in barley, either read "cost of crop," or refer crop to what follows. H. K.

*For the New England Farmer.*

#### MODES OF GETTING CROPS.

I have often thought it singular that some of the multitude of your experienced farmer correspondents have not told us how they perform the various operations of the farm. Few are alike in all respects in this particular, and if intelligent, practical men would give us their modes of operation, your numerous readers would have before them much matter for reflection, and find many things, no doubt, for adoption.

It is not to be supposed that the best method of doing things in one locality, is to be the rule for all, or that those in possession of vegetable soils, are to adopt the treatment of those farming a sandy one; but in the course of their farm arrangements, each and all may develop processes that will be of value to their fellow-farmers.

It strikes me that if you were to give promi-

nence to this suggestion, and call out the farm management of your intelligent correspondents and readers, we should have a mass of valuable matter for our consideration.

With your permission, therefore, I will, in some future communications, detail my management and experience, although quite limited, I suppose, compared with many others whom I hope to see giving us theirs. J. COE.

*Rochester, Mass., Jan. 11, 1860.*

REMARKS.—Very well—go ahead. We had supposed that every page of the *Farmer* gave more or less of the details of securing almost every crop raised in New England.

*For the New England Farmer.*

#### POTATOES ON GRASS LAND.

My land is in Brewer, Me., is clayey loam, free from stones, and now free from stumps, though it has been but twelve years since it was covered with a heavy growth of pine and hemlock timber. The day before I want to plant my potatoes, I spread a fair coat of manure on a piece of grass land that was mowed the year before, and after I have spread over as large a piece as will make one day's planting, (so as to keep the manure from drying up,) I commence at one edge of the piece with a light sward plow and a strong pair of oxen, and run a rather shallow furrow as straight as possible, lapping this furrow of course on to the green sward so that the two grass surfaces will lay together. The seed is dropt about eight inches apart, on the grass land, right at the edge of the furrow that was turned up; then plow another back furrow, lapping it on the grass as before, so the two edges will meet together and cover the seed, and also the width of two furrows that has not been disturbed with the plow, that is, the two furrows are "cut and cover," as farmers call it, as is always the case when you commence in the middle of a "land" and turn with a gee, and so on for the whole piece; but this furrow is a little more difficult, for the plow must run back in, or at the edge of this last track, but the plow can run a little deeper this third time, so as to give it hold enough of the earth to turn up this third furrow and lap it on the grass, ready to drop another row of potatoes.

The two narrow grass surfaces are thus laid together, with the manure between them, and the potatoes are planted in the midst, where they have a warm, moist nest, and will soon sprout up through the joint of the two furrows, and the roots will run out among the grass and manure, under each sod, and get all the benefit of the decomposing grass-sward and dressing.

The seed is not so liable to be drowned by heavy spring rains, for the water will settle in the ditches made by the plow, and the plants will stand the drought better, because these two grass surfaces will retain a sweat and moisture that the mellow earth will not. It is very little work to hoe them, for they do not need much larger hill or bed than they already have.

I have planted so for three years, and last season planted six acres of Jackson Whites in this manner, and think I can raise about double the



crop per acre that my neighbors do, planted in the common way. When I dig them, the sward is very well rotted, but retains strength enough to be turned off with the hoe in flakes and lumps, and there the potatoes lay like apples on a shelf, and as clean as smelts, for they have seen no dirt, looking at you and inviting you to pick them up; and the land is in tip-top order, for these old grass sods have had a ground sweat all summer, and have become quite rotten. I lack a suitable plow, for I need a *sward* plow with a mould-board on each side. Will some of the plow folks see what they can get up for this purpose?

I advise farmers to try it without fail.

Malden, Mass.

A. S. HALL.

#### EXTRACTS AND REPLIES.

##### SANDY LAND—CLAY—MUCK.

1. Can sandy loam soil be productive without costing more than it will be worth? If any one can tell me how I can manage this soil to make it fertile, produce great crops of grass and not fail in a dry season, they will do me a favor.

2. Will it pay to haul clay one mile to mix with sandy loam?

3. Will it pay to expend two hundred dollars in building a manure cellar under a lean-to that will tie up twenty-six head of cattle?

4. Is muck worth more to use for bedding than it is to mix with the manure heap after it is thrown into the cellar. A YOUNG FARMER.

Embden, Me., Feb., 1860.

REMARKS.—1. That depends upon circumstances. If clay and muck are near by, and manure can be made, or purchased at a fair price, (and this price must be graduated by the price of farm products in the vicinity,) sandy lands can be made profitably productive. Sandy loams would be still more easily reclaimed.

2. We have no doubt it will.

3. We cannot tell—so many collateral circumstances are to be considered. We fully believe in barn cellars.

4. Muck may be advantageously used in both ways. Fine dry muck is excellent as a bedding, to say nothing of its absorbing power, and when used as bedding, it becomes at once mingled with the droppings, and everything is saved.

##### FISH AS MANURE.

Will some one inform me of the comparative value of fish as a manure, also the probable cost delivered in Worcester? How it will work on sandy loam, and which would be the best and cheapest, fish or horse manure, which costs \$3 or \$3.25 in Worcester, and which we must cart seven miles? E. H. NEWTON.

Auburn, Mass., 1860.

##### COFFEE SPECULATION.

I wish to inquire if Java coffee will grow in the New England States? If so, with what success? Hopkinton, Mass., 1860. S. W. M.

REMARKS.—We are not able to inform you.

##### ORCHARD GRASS.

In the *Farmer* of Feb. 18, I noticed an interesting article on this plant, giving its description, history, &c. I wish to inquire where the seed may be obtained, and at what price? Also, whether it will flourish on ordinary plain land? J. A. A.

Springfield, Mass., Feb., 1860.

REMARKS.—Orchard grass seed may be obtained of Messrs. Nourse & Co., 34 Merchants' Row, Boston, at from \$1.25 to \$1.75 per bushel, according to the manner in which it is cleaned up. Twelve to sixteen quarts per acre is the amount usually sowed.

##### CULTIVATION OF PEAS.

Will some one acquainted with raising the crop inform me in regard to raising peas? What kind of land is best adapted to them? How deep should they be plowed, and what quantity sowed to the acre? Would they do well plowed in on moist greensward? A NEW SUBSCRIBER.

Waterbury Centre, 1860.

##### A FINE PAIR OF CATTLE.

I have a pair of cattle, now seven years old, raised by myself, and kept in quite active service until within three months past. They have had no extra attention or feed, until within this time. They are very well matched, and weigh upwards of 5000 lbs., and have been spoken of as being the heaviest pair of well matched oxen in the county. D. Z. STERLE.

Sharon, Vt., March, 1860.

REMARKS.—A good example, friend Steele. A pair of cattle like these, having pretty much paid their way by their labor, will afford nearly what they bring as clear profit, to say nothing of the honest pride a man has in rearing such a pair. We will venture to say that no one hears Mr. Steele grumbling about the profits of farming. He takes a good agricultural newspaper, no doubt, and observes what other people are doing in his profession.

##### BITTER CREAM.

I have a cow six years old; she gives very rich milk, and good tasted, until it has stood about twenty-four hours, when the cream becomes bitter; some measures very bitter and some but little. The first two years it was perfectly sweet. She is well kept, and has plenty of salt. A year ago the past winter she was kept on good rowen, and the cream was the most bitter then. I wish to inquire of you, or some of your correspondents, the cause and remedy, if there is any.

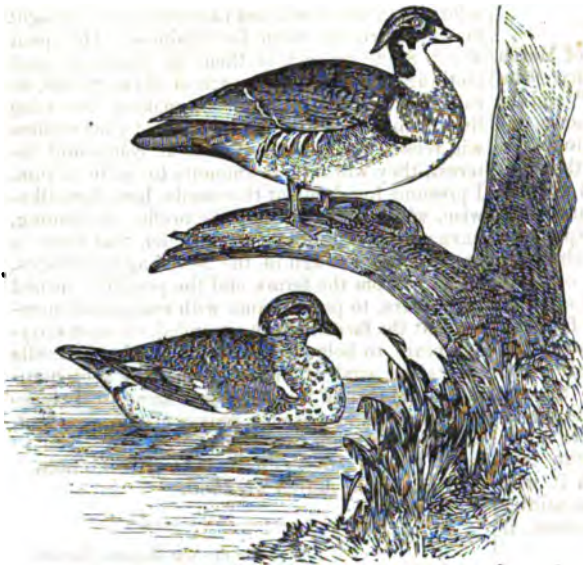
Proctorsville, Vt., 1860.

SUBSCRIBER.

##### HUBBARD SQUASH SEED.

I would like to inform your subscribers, through your columns, that any one wishing to obtain some of the celebrated "Hubbard Squash" seeds, can have a small quantity free, by sending a prepaid envelope to my address.

Cumberland, Me., 1860. HORACE I. GRAY.



### THE WOOD DUCK.

This bird, which is also called the *Summer Duck*, is the most beautiful of American aquatic fowl. It derives its former name from the fact that its nest is made in hollow trees, and the latter from its migratory habit, which carries it far to the South during our winter months. The plumage of this duck is of the most brilliant description, an idea of which can hardly be conveyed in words. The head is of a deep glossy green, the crest being rich bronze green, ending in violet. The line of pure white, running from the upper mandible over the eye, and the other line of white commencing behind the eye and running down into the neck, blend beautifully with the green of the head and crest. The

throat is pure white, the breast dark violet brown, marked with white spots, which grow larger until they spread into the white of the belly. The wings and back, and posterior parts of the body, are all beautifully marked. Of the habits of this fowl, BEMENT says:

It is only seen in the North during the summer months, migrating southwardly with the cold weather. It is familiarly known in every part of the United States, from Florida to Lake Ontario. It rarely visits the sea-shore or salt marshes, its favorite haunts being the solitary, deep and muddy creeks, ponds, and mill-dams of the interior, making its nest frequently in some old hollow tree that overhangs the water.

The wood duck seldom flies in flocks of more than three or four individuals together, and most commonly in pairs, or singly. The common note of the drake is *Peet! peet!* but when, standing sentinel, he sees danger, he makes a noise not unlike the crowing of a young cock—*Oe eek! oe eek!* It breeds from Mexico to the Columbia River, and eastwardly to Nova Scotia. It has been found from 19° south to 54° north latitude. Its food consists of acorns, chestnuts, seeds of wild oats, aquatic plants, and insects. Its eggs yellowish-white.

This beautiful bird is easily domesticated, and soon becomes so familiar as to permit one to stroke its back with the hand. "Captain Boice, Collector of the port of Havre de Grace, informs me," says Wilson, "that about forty years ago, a Mr. Nathan Nichols, who lived on the west side of Gunpowder Creek, had a whole yard swimming with wood ducks, which had been tamed and completely domesticated, so that they bred and were as familiar as any other tame fowls; that he (Captain Boice) himself saw them in that state, but does not know what became of them." Latham says that they are often kept in European manageries, and will breed there.

### COLORING BUTTER.

In many cases it is not necessary to use any coloring substance. But sometimes butter, (especially in the winter season,) is quite white, and in order to make it more inviting to the palate, as well as more saleable in the market, some coloring substance is used. Some people color it with carrot juice, but I prefer a more simple, and I think a better way.

When the butter is gathering, drop into it the yolk of one or more eggs, (the number depending upon the quantity of cream,) and churn all together till the butter is gathered. The yolk, like butter, being of an oily nature, greatly improves the flavor as well as color of the butter.

DAIRYWOMAN.

Mendon, Mass., March, 1860.

### HORSE PITCHFORK.

I noticed an inquiry in the *Farmer* about the horse pitchfork, from "W. N. C.," Hartford, Vt. From a personal knowledge of it, I think it to be most desirable labor-saving implements now in use, as it makes the once most dreaded part of the haying season easy. I can put a ton of hay from the load over the high beams in from three to five minutes, or I can pitch a ton of hay over the beams in seven minutes, through the afternoon, without making it hard work. Its cost is \$12. It can be used in a shed, or any part of the barn, used in stacking hay, or lifting corn, &c.

Chester, Vt., 1860.

H. B. WOOD.

### MOWING MACHINES—HORSERADISH SEED.

Will some of your readers give us a description of a machine lately got up at Concord, N. H., one horse \$30, and two horse \$55, and whether friction is overcome more than in those now in use? Where can I procure horseradish seed, and at what price?

SUBSCRIBER.

Pottersville, N. H., 1860.

*For the New England Farmer.*

### FARMING IS PROFITABLE.

MR. EDITOR:—A writer in your paper of March 10 speaks of Mr. Jefferson, as saying that "the farmer is the greatest of all gamblers;" and in another paragraph the writer says, "Man sows, but God giveth the increase." No one will doubt the truth of the last declaration; and I admit, that God and the farmer are co-workers, but I will not admit, for a moment, that God or farming have anything to do with gambling. Your correspondent asks, *must* the mass of farmers live as cheap as they can, and trust to God for the result of their labor? To this I would answer, that no class of people in the world live better than the farmers. For proof of this, look to their health and strength; and I rejoice that the farmers as well as all other classes of people, must trust in God for the result of their labor. He speaks of the painter as making very accurate calculations of the stock and labor for doing a given job. But can that painter make any calculations, how much it will tax his health? How often do we meet a painter in the street that would give all he possesses, if he could have his health restored to him.

He also says, "let a general farmer cultivate all the crops—in no season will more than half of them be successful in Massachusetts." In this I think he commits a great error. For the last sixty-five years, I never have known any one year when half the crops were cut off. During that period I have known the corn crop to fail but three times. A few large crops do not determine that farming is profitable, neither do a few small ones prove it unprofitable. I do not undertake to say what profession the Pilgrims followed before they left the old country; but one thing is very certain, after arriving here, they must have practiced farming or starved. I can very well remember events for the last sixty-five years. Almost the entire community then were farmers. Have we ever heard of any country in the known world, that has equalled our own in the rapid accumulation of wealth? Have not the farmers been the foundation of all this? Have they not changed the New England States from a howling wilderness, to what they now are? Is not the soil of New England, now, on an average, worth a hundred-fold what it was when the Pilgrims landed at Plymouth? Have not the farmers laid the foundation of all the improvements, manufactures, rail-roads and every improvement in the country? And do they not, at the present day, give support to all of them? What class of people have gone, and are still going to settle our Western States? It is the farmer. And if there should be no profit in their business, would there be any chance for the doctor, the lawyer and the shaver of notes to get a living there? I know there is, occasionally, a man who does not work at farming, that dresses better, holds his head higher, and in appearance seems to think himself better than farmers. I know not what his occupation may be, but let it be what it may, if all farming operations were suspended, I presume he would feel the effects of it equally as much as a beautiful, green sucker, with a smooth bark, growing out of an old apple-tree, would, if the main stock should be cut off.

I am frequently asked, "if there is a profit in farming, what becomes of it?" I will answer

that, by relating one fact. About fifty years ago, a farmer in this town had two sons, and thought he would prepare them for business. He spent about \$500 on each of them in education and clothing, and then gave each of them \$1000, to establish himself in business, making the snug little sum of \$3000. Now, if any of your readers will reckon the amount of this, at compound interest, they will find it amounts to quite a sum. I presume hundreds of thousands, have done likewise, which tells us where the profits of farming, have gone. I am firm in the belief, that there is not property enough in the New England States, separate from the farms, and the property owned by farmers, to pay the sum with compound interest that the farmers have expended, the past sixty-five years, to help along what friend Merriam calls the "sister arts" of business. Shall we keep harping in the ears of the few aged farmers that remain, and as we pass the graves of the departed, "there is no profit in farming."

ASA G. SHELDON.

Wilmington, March 27, 1860.

*For the New England Farmer.*

### HOW TO RAISE LARGE CABBAGES.

MR. EDITOR:—"Old Subscriber" wishes to know how to raise large cabbages. Let me tell him. Plow land deep, harrow fine, put on twelve cords of strong manure to the acre; plow and harrow as before, then take a small plow and furrow twice in a row; put one large shovel full of strong manure in each hill, 2½ feet apart; chop fine with a hoe, and cover with two inches of earth. Drop from five to twenty seeds in each hill. After the plants are well up, cultivate and hoe twice a week, and thin to one in a hill as they become large enough.

As I have followed the sea till within a few years, my plans may be a little different from most farmers. Perhaps "Subscriber" will ask how I get manure at this rate for so much land? I will tell him. I keep one pair of oxen and two horses in the winter season to draw manure; first we get all the vault manure possible, kelp from the beach, and all kinds of manure that I can buy, never being afraid of getting too much.

CAPT. SAMUEL GRAVES.

Marblehead, Mass., 1860.

REGULARITY IN MILKING.—Mr. O. E. Hannum, a very successful dairyman of Portage Co., Ohio, a native of old Berkshire, Mass., names the points of his management as follows: Good cows, good feed, *good milking*, good care and management of the milk. He puts "good milking" in italics, and remarks: "Each cow should have a steady milker, be milked as fast as possible, and all the milk drawn. I am satisfied that there is a loss of one-third in many dairies, by the lazy, haphazard way in which cows are milked. I have known persons sit down in the milking-yard and go through with some long yarn, and be from ten to twenty minutes milking one cow, when it should be done in less than five."

*For the New England Farmer.*

### HIGH FARMING ON LONG ISLAND.

MR. EDITOR:—I have been much interested in the discussion in your paper, for some weeks past, upon the question, "*Is Farming Profitable*," and I desire to state to your readers what has been done upon "Long Island," upon lands similar in every respect to those I advertised in your paper for sale a few weeks since. One person owning a farm of 40 acres, at Flatlands, 6 miles from Brooklyn, raises principally early potatoes, peas, lettuce, &c., with an after-crop of cabbages, has, for twenty years in succession, been able to invest regularly \$2000 upon bond and mortgage, and has now \$40,000 safely invested, and thinking he has made sufficient, offers his farm for sale at \$500 an acre.

Another farm of about 200 acres at South Jamaica, about 12 miles distant from market, is occupied by three brothers, who cultivate a general variety of vegetables and small fruits. I am told by an intimate friend of theirs, that they expend \$3000 annually for manure, and that their average annual profit, over and above all expenses, beside making their farm more valuable, is \$6000 per annum. I might go on and fill a column with such cases. And I hold that what these men have done others may do. Your readers may say these people are nearer to market than the lands I advertise. I answer that we have made a favorable arrangement with the Long Island Railroad Company to run a nightly train through the market season, and a barge in connection with the railroad, delivering at the principal market in New York, early every morning, all kinds of marketing we choose to send. We consign them to reliable commission merchants, who dispose of them, and make returns without seeing the owners at all. I am satisfied "farming is profitable," intelligently conducted, and if these men I have mentioned can make their farms pay a good interest upon a valuation of \$500 to \$1000 per acre, what may be done upon just as good land at \$20 to \$50 the acre? Yours truly, AARON STONE.

New York, Feb., 1860.

*For the New England Farmer.*

### GROTON FARMERS' CLUB.

MR. EDITOR:—Our farmers' club have adopted and put in practice, what I understand to be the practice of the Concord Farmers' Club, i. e., the writing and reading of an essay, by a member of the club, on some subject pertaining to the farm, and after the reading, discussions, or conversations by the members on the subject of the essay. Since adopting this practice, a much warmer interest has been manifested in the meetings of the club, and we have reason for hoping that good will result from the practice.

At the meeting of the club on the 5th inst., we had the pleasure of listening to a lecture by Henry C. Vail, Esq., of Sing Sing, N. Y., on subjects pertaining to the farm. The attendance was very large. Mr. Vail illustrated much of his lecture, by means of diagrams, by the aid of which many things were made plain, which otherwise would have been shrouded in mystery. He riveted the attention of his audience for nearly two hours, and at the close of the lecture, questions were

asked by the audience, and answered by the lecturer. The close attention paid by all present to the lecture, for so long a time—nearly two hours—plainly spoke the deep interest imparted to the subjects by Mr. Vail's method of presenting them.

After the meeting adjourned, many members of the club, among whom was Ex-Governor Boutwell, expressed to Mr. V., in flattering terms, the pleasure they had enjoyed. We hope to have Mr. V. deliver a course of lectures before the club at some future day, and most heartily wish that he may lecture before every agricultural club and society in this Commonwealth. His method of treating agricultural subjects makes his lectures interesting to all classes, not excepting the ladies, many of whom were present at his lecture here, and expressed the wish to hear him again.

Yours truly,

A. H. C.

Groton, March 12, 1860.

*For the New England Farmer.*

### EXACT COST OF A CORN CROP.

#### FARMING IS PROFITABLE.

I have been somewhat surprised, and not a little amused, by the perusal of several articles in the *Farmer* by Mr. Pinkham, of Chelmsford, in which he labors very energetically to make himself and others believe that the whole farming community, or at least all such as are not fortunate enough to have rich relations to give them a start, are coming to poverty at railroad speed, as at the rate of ten dollars for every acre of corn they cultivate, and a like proportion for every thing else.

He reminds me of a certain grocer I once knew, who was the only one in a small village, and doing a first-rate business, but so great was his fear that some one would start in opposition, that he always made a practice of running down his business so as to deter others from going into it, notwithstanding in a few years he retired from business with a fortune. I don't say that friend Pinkham has made a fortune, or is ever going to, by farming; indeed, I think he never will, if it costs him as much to raise an acre of corn as he says it does, but one thing I am sure of, which is this,—a great many men have made money by farming, and by raising corn, too. I think if all his neighbors are as liberal in their estimates of labor as himself, that Chelmsford must be a perfect paradise for the day-laborer, although rather expensive for the employer. For instance, he puts down against his corn crop, \$4.25 as the cost of plowing an acre. I venture to assert that any man with a good team, can afford to plow common kind of land for from \$2.50 to \$3 per acre, and make a good living at that. Then, again, he charges the corn with all the manure, which ought not to be done, for any intelligent farmer knows that manure spread broadcast is not more than half exhausted the first crop. He charges \$6.50 for harvesting 30 bushels of corn and taking care of the fodder, which is \$1.50 more than any reasonable man would ask, to do it by the job, or any other way. He also charges 50 cents for pulling weeds, which would not be necessary to be done if the hoeing was done, as it should have been, at the price allowed for it. As to marketing and shelling, there is no place in New England or New

York, at the present day, that it actually costs more than 6 to 8 cents per bushel to shell and market corn, and it need not be done in the night, either, as some of your correspondents suggest. I do not pretend to say that Mr. Pinkham did not expend \$47 on an acre of corn. I presume he did, and also that others have done the same thing—but it is my opinion that any farmer that expends \$47 on an acre of corn, with ten loads of manure on the land, must either have very poor land or be a very poor farmer, if he realizes only 30 bushels of corn and \$7 worth of other stuff.

If farmers are continually going behind-hand, as he says, why do not more of them have to abandon the business? Why do we not hear of more of them becoming insolvent? I will venture the assertion that for every farmer that becomes bankrupt, there are five in the mercantile profession, which Mr. Pinkham seems to think is a short and easy road to wealth.

The past season I have raised three acres of corn, and instead of its running me in debt, I have made it a profitable crop, notwithstanding Mr. P.'s assertion that there is no profit in farming; to prove my position I will give my figures taken from a regular account kept with the crop, omitting dates. The account is no guess-work, but the actual cost of every thing except the labor, which I have charged at \$1 per day—whereas it only cost me a little more than half that amount, as I paid \$21 per month for my hired man, and he boarded himself; and if any doubt exists as to the accuracy of the account, the affidavits of myself and hired man can be had to substantiate it.

I have charged only half of the manure to this crop, for it does not belong to it. My account was kept with the whole three acres, but I will take one-third of that, so as to bring it down to one acre.

## ONE ACRE OF CORN.

Da.

To 1 man and 1 team of horses 1 day plowing.....	\$3.00
To 1 man and 1 team of horses 1 day drawing manure.....	3.00
To $\frac{1}{2}$ of 15 loads of manure.....	7.50
To 1 man $\frac{1}{2}$ day spreading manure and harrowing.....	1.00
To " " $\frac{1}{2}$ day marking.....	1.00
To " " 1 day planting, \$1 seed and plaster, 87 $\frac{1}{2}$ cts.....	1.37 $\frac{1}{2}$
To " " $\frac{1}{2}$ day cultivating.....	1.00
To " " 1 day hoeing.....	1.00
To " " $\frac{1}{2}$ day plowing.....	1.00
To " " 1 day hilling.....	1.00
To " " $\frac{1}{2}$ day cutting up at the hill and binding.....	1.50
To " " 4 days husking and cribbing.....	4.00
To 2 men $\frac{1}{2}$ day drawing fodder, pumpkins, and other work.....	3.00
To plaster and putting it on.....	.80
To interest, taxes, wear and tear of tools, &c.....	4.00
To shelling and marketing, at 8 cts. per bushel.....	3.88

\$37.54

## ONE ACRE OF CORN.

Ca.

By 42 bushels of corn, at \$1.03.....	\$43.26
By fodder sold.....	5.00
By 3 loads of pumpkins, at \$1.....	3.00
By 4 bushels ears soft corn, at 25 cts.....	1.00

\$52.26

I make the total cost of one acre of corn to be \$37.54, instead of \$47, and the receipts for the same \$52.26, leaving \$14.72, which I call profit. The number of days' manual labor bestowed on the crop, 17 $\frac{1}{2}$ , and the number of days' team labor, 4 days; and allowing a day with a team to be worth two of a man, making 25 $\frac{1}{2}$  days' work necessary to cultivate an acre of corn. Deduct from the cost of the whole the worth of the fodder, pumpkins and soft corn, and I have \$28.54 as the cost of 42 bushels of corn, or a trifle less than 68

cents per bushel, leaving 35 cents as something, whether it is profit or not.

If a merchant buys a piece of cloth for \$1 per yard, and sells it for \$1.25, he calls the 25 cents profit, (that is, if the \$1 covers all expenses of transportation, &c.) and if it is so, why is not my 35 cents on a bushel, profit also? True, I do not always make 35 cents a bushel on my corn crop, but I never yet have failed to make something clear. Mr. P. says, in his opinion no man can take a farm, go on, and in time pay for it, without outside help. I know of several that have done so, myself among the number. I have raised this year two acres of flax, on which I have made \$23 per acre, over and above all cost, and if desirable, I will give the account with that crop at some future time. Mr. P. says one of two things is evident, that the farmer either gets no per cent. on his capital, or no pay for his labor.

If I allow \$1 per day for every day's work I do on my corn crop, and pay in the same proportion for team labor, and have \$14.72 left, I would like to know what that is but a certain per cent. on the capital invested in my farm?

Oak Hill, N. Y., 1860.

INVESTIGATOR.

For the New England Farmer.

## COOKING FOOD FOR STOCK—WILL IT PAY?

In the range of my agricultural reading, I find a record of but a few experiments to answer the above question, and I meet but few farmers able to answer it. Of those who have conducted experiments, the results of which go to show that it will pay, I find the following:

CASSIUS M. CLAY states that after trial, he has found that one bushel of dry corn would make five pounds, ten ounces of pork. One bushel of boiled corn, fourteen pounds, ten ounces, and one bushel of boiled meal made in one instance sixteen pounds, seven ounces, and in another, nearly eighteen pounds of pork, or, in other words, when pork is eight cents per pound, dry corn is worth forty-five cents; boiled corn \$1.15 $\frac{1}{2}$ , and boiled meal \$1.31 $\frac{1}{2}$  to \$1.44 cents per bushel.

Mr. S. H. CLAY, of Bourbon county, Ky., says that he has found, by careful experiment, that pork made by feeding raw corn at fifty-six cents per bushel, cost nine cents per pound; that made by feeding boiled corn cost four cents per pound, while that made by boiled meal cost three cents per pound.

Hon. H. L. ELLSWORTH, once Commissioner of Patents, says that it is a fact established by long experimenting, that corn ground and cooked is 150 per cent. better for fattening cattle and hogs, than corn as it is usually fed at the West.

If the conclusions arrived at by these experiments are correct, farmers who feed their grain or meal raw, are losing badly by such a course.

It has seemed surprising to me, that our State Agricultural Societies have not taken up this subject more generally, and offered liberal premiums for experiments in feeding cooked and uncooked food to cattle and swine. If the value of grain for feeding is increased by cooking one-half the amount that the experiments referred to would indicate, most certainly our farmers ought to know it, and practice accordingly.

Our agricultural societies pay hundreds of dollars annually in premiums for the best animals of different kinds, exhibited at our shows, but what we most need to know, is, how most economically to produce them. Premiums offered for good animals, or crops, are but little benefit to the public without this.

I have not been able to ascertain that more than one society in the State (the Hampshire, at Amherst,) has offered premiums for such experiments. In that case, but two persons made a trial—Messrs. MONTAGUE and HUBBARD, both of whose experiments were decidedly unfavorable to the use of cooked food. I have recently seen the statement that, from experiments conducted in Scotland, it would not pay to cook food for stock. In view of these conflicting results from different experiments, we need more light. Can you, Mr. Editor, or any of your correspondents, shed any upon the subject? ELIHU SMITH.

*Sunderland, March, 1860.*

#### LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The eleventh meeting of the present series of the Legislative Agricultural Society was held in the Representatives' Hall at the State House on Monday evening. COL. HEARD, of Wayland, occupied the chair, and announced the subject for discussion to be "*Manures*."

MR. SPARHAWK, of Charlestown, being called upon, said it was well understood that the growth of plants was produced by air, light and the sustenance from the soil, and it was necessary that the nature of the plant should be known in order to know what sustenance it needs. It was an acknowledged fact that the lands in Massachusetts have very much deteriorated within thirty or fifty years by constant cropping, and he was of opinion, from what had been stated at the last meeting, that the lands in Ohio would soon be in the same condition, as he could only compare the people there to buffaloes roaming in search of new pastures, when they had used up all there was on the old. The speaker said that in China, France and England, the land, notwithstanding the heavy draft upon it, has improved under scientific tillage, and this confirmed him in the opinion that we must understand something of agricultural chemistry to restore our lands. This is not so much necessary on the rich lands, as on those worn out, in order to bring them to their primary condition.

Alluding to the growth of plants, Mr. Sparhawk said that when manure was thoroughly decomposed it was in its best condition for feeding, and that green manure, unless plowed in deep, was not so good, as the straw mixed with it acted as so many syphons, carrying off the ammonia and other fertilizing properties. If green manure is applied to the surface, he contended that it must be

that a great part of the organic matter is lost. He considered it a great mistake to apply green manure to the surface of grass lands, and so far as his observation went, it had been particularly injurious when applied to the roots of trees. There was another objection to green manure, in the fact that when applied it contained, necessarily, a great mass of undigested matter, which not being thoroughly decomposed, was, as he thought, the means of drawing together and breeding worms or insects injurious to crops. He claimed that to avoid this, it should be diluted with carbon in the cellar and mixed with muck. He did not wish to be understood as saying that green manure well plowed into arable land, where it did not come in contact with trees or grass, was not good, but he considered that where manure was kept in the cellar until spring, without absorbents, and then carted to the field in a heap until used, it was a loss.

As a matter of economy, he said, no man can afford to purchase foreign manures, such as guano, &c., when better can be produced for much less money on any farm in the State. It is as necessary, said he, to study the wants of plants as that of animals, and the value of our crops depends upon the cultivation they receive, and the quality of the crop will increase in the same proportion as the quality of the land from cultivation.

HON. AMASA WALKER, of North Brookfield, being called upon, said he had come to the city on another matter than that under discussion, but one which he considered paramount to all others at the present time—the disease among the cattle in that portion of the State where he resided.

On motion of Mr. Stoughton, of Gill, the subject under discussion was laid on the table and that of the cattle disease taken up.

MR. WALKER said that he considered the danger from the disease was a hundred fold greater than it was two weeks ago, as the contagion had been found to be so rapid. It was well known that the disease was considered to be incurable in Europe, and he had been delegated by the selectmen of North Brookfield to come to Boston and urge upon the Legislature the necessity of taking immediate action to check its ravages. He alluded to the excitement existing in the towns where the disease was, as well as those surrounding, and said that it was supposed it had spread to Sterling, where four cows had been sold from a herd that had been exposed, but which had not yet shown symptoms of the disease.

MR. STOUGHTON, of Gill, alluded to the resolve before the Legislature, and said it provided that when any person knew or suspected the disease to be among his cattle, he should give information to the Selectmen or Mayor and Aldermen. He thought that where some men were only going



to get fifty per cent. of the value of their cattle they would be slow to suspect this disease, as also that it would be difficult to convince others that their cattle really had the disease. His idea was, that a Commissioner should be appointed to destroy every animal that has the disease or has been in any way exposed to contagion, as if it cost the State \$5000, \$10,000 or even \$25,000, it would be a trifle, comparatively. It would be better, said he, to kill fifty well animals than to run the slightest risk. It had been stated that the disease had abated among Mr. Chenery's herd, but he was informed that notwithstanding it did apparently abate for a time, Mr. Chenery had recently lost several animals, thus showing the danger of judging by appearances. He not only was desirous of seeing all infected cattle killed and buried, but the barns or buildings in which cattle affected had been kept, either thoroughly purified or burned.

Col. STONE, of Dedham, spoke of the action of Mr. Stoughton in relation to the resolve which was on the table of the House of Representatives and attributed the fact of its being in that position, and not having been passed, to that gentleman.

Mr. WALKER, of North Brookfield, said that when he drew up the bill that was presented before the Committee on Agriculture, he foresaw the many objections that would be raised to it, and many of them he recapitulated, but he wanted some one man or body of men appointed in whose judgment and honesty the Legislature could rely, to make examination and destroy the diseased cattle, and make such award therefor as was proper. In Europe there was a provision that if a man failed to give notice that any of his cattle were attacked with pleuro-pneumonia, he should be fined \$30, while if he gave such notice he received full payment for his cattle.

Mr. Walker said he had been informed just as he was leaving home, but he would not vouch for the truth of the statement, that the disease had exhibited itself in another phase, which made it still more serious. A neighbor of his bought a cow last summer which was served by a bull belonging to Mr. Chenery, and which had since suffered from pleuro-pneumonia, and this offspring of the cow has the disease now, while the cow has never shown any symptoms of it.

Mr. FAY, of Lynn, said the question appeared to him to be as to the best mode of abating the disease, and he thought this could be done as well in twenty-four hours as in a year. On reading over the act which was before the Legislature, he had felt convinced that there should be something more urgent as well as stringent. Something must be done thoroughly, and whoever had the doing of it must apply the remedy as the knife is applied to the cancer. One, two or three persons

should be appointed to attend to the matter, in whom the people have confidence, and these should have almost unlimited power not only to destroy the cattle but the buildings, should they deem it necessary, and thus eradicate the disease. Mr. Fay said that \$5000 was a mere pittance, yet so far as he knew, it might be enough, and more than enough, to pay the expense. If town by town, where an excitement on this subject was felt, were to come and present this matter to the Legislature, an appropriation as large as that of the general appropriation bill would be made. To show the feeling in his part of the State, he said a man who kept some 40 head of cattle, said he would give \$100 towards having the disease eradicated, while another farmer who kept about the same number of cows, said he would freely give the five best he had to have the others insured from this disease. If an exigency exists, said the speaker, then prompt action is demanded imperatively, but if there is no exigency, then no action is necessary, and he thought it was just as well to have a law to cover the whole ground at first as last.

Mr. STOUGHTON said the reason he opposed the passage of the bill in the House of Representatives was, that he considered it defective, and not what the exigency demanded. It provided for no penalty in case information was not given to the authorities, nor for any purifying of barns or places where diseased cattle had been kept. It gave a man owning diseased cattle his own time in which to make complaint, and in a disease such as pleuro-pneumonia this was wrong, and then it left it optional with the Selectmen whether to kill all the cattle, or only the worst ones, and, as these Boards in many instances consisted of five, there would be a diversity of opinion among the members, thus causing delay, and consequently danger.

Col. HEARD said the Committee on Agriculture were divided in opinion in regard to the enactment of a general law on this subject, but that the whole committee were in favor of a special act to meet the few cases now known. The parties owning the diseased cattle had pledged themselves to the Secretary of the Board of Agriculture that they would put their cattle at a fair valuation, and he thought the bill ought to be passed at once.

Mr. BUCKMINSTER, of Boston, spoke in favor of a special commission being appointed to destroy cattle affected with pleuro-pneumonia as being preferable to the Board of Agriculture or the Selectmen of towns, who had enough to attend to without this.

Mr. C. L. FLINT, Secretary of the Board of Agriculture, said he was sure the enormity of the evil was not known to the members of the Legislature, as, was it understood thoroughly, he felt satisfied twenty-four hours would not elapse be-



fore efficient action was taken to crush the disease. He said that the worst features were now exhibiting themselves, and that since the disease had first broken out here, he had given much time to its study, and from correspondence abroad and personal examination here, it was positively the pleuro-pneumonia of Europe, and there was no cure for it. The recent cases here show that although an animal may appear to be recovering, and in some cases appear to be well, it still possesses the elements of the disease, which is liable to cause its death at any time.

The bill proposed in the Legislature had a provision in relation to quarantining animals that were supposed to have been exposed to infection, but, the speaker asked, who would drink the milk, or eat the butter or cheese, or even the beef of any cattle even supposed to have been exposed? It was folly to suppose that a cow would be good for anything among those who entertained the slightest suspicion that she had been exposed. There had only been two cases in which the disease had been brought to this country,—the case of Mr. Chenery, and a large cattle breeder in New Jersey, who when he found the disease to exist among his herd, sacrificed from \$8,000 to \$10,000, by killing off those affected, and thus stopped it at once. This, said Mr. Flint, is not a matter that solely concerns the farmer, as all are anxious for the speedy extermination of the plague, and prompt action on the part of the Legislature was demanded for the protection of the consumer as well as of that of the producer.

A farmer from Andover said that he had come to the city, to ascertain what action the Legislature were going to take, and expressed his surprise that none had yet been taken to stay the disease. He spoke of the dread his neighbors had of the disease coming there, and said that even now the value of stock was depreciating from the dread of the disease spreading.

Mr. HOWARD, of Boston stated that although this disease had been prevalent on the European continent for a century, it only first showed itself in the British Isles in 1841, and then in Ireland, but at that time there was no country in the world so well provided with a force to resist the disease, as there were graduates from the London and Edinburgh Veterinary Colleges all over the country, who had given the subject special attention, and so the disease had never spread there as elsewhere. Mr. Howard closed his remarks by alluding to the case of the calf mentioned by Mr. Walker, saying that if such an occurrence had really taken place, the disease becomes doubly alarming, and it was necessary that the case should be inquired into by veterinarians, so as to see whether the disease was constitutionally hereditary in cattle.

*For the New England Farmer.*

#### LAWTON BLACKBERRY, ONCE MORE.

MR. EDITOR:—I supposed I had done writing upon the Lawton blackberry, but will say a few words more, as I think by so doing light may be so shadowed forth as to show that you and your contributors, although seeming to disagree in several particulars, are severally in the right. I will quote a few lines from the *Country Gentleman*. "The New Rochelle (Lawton) blackberry is variable in the flavor of its fruit; sometimes sweet, and at others quite acid. We have not yet determined what influence generally produces this difference." So you see mine may be sweet and your's sour, and still both Lawton.

Mr. Bassett has come to a correct conclusion. My axes are all ground; but if they were not, and I wished to "set them on edge," I would try and get some of his sour fruit. I would say to him that I am well acquainted with wild varieties, as they grow both in Vermont and Massachusetts. I know many of them to be very fine indeed, but have seen none that would not suffer in comparison with what I have raised as the Lawton. I raise only a very few—not having room—but should they prove as good the coming season, as they were the last two, I shall be most happy to give all incredulous persons "a taste," if not too numerous. G. W. H.

*New Bedford, 2nd mo. 18, 1860.*

REMARKS.—Thank you, sir. Hope we shall taste them.

*For the New England Farmer.*

#### LEAD PIPE FOR CONDUCTING WATER.

MR. EDITOR:—Your correspondent of Billerica, in the *Farmer* of Jan. 28, asks for information in relation to the best kind of pipe to convey water through, and says, if the water was soft, he should use lead.

Now as I happen to know something by rather dear experience in relation to lead pipe for conveying water for culinary purposes, I have thought it my duty to give the little knowledge I have obtained in that direction, for the benefit of him, and others who wish to convey water to their dwellings. Some 17 years ago I conceived the plan of bringing water into my sink by pipe and pump, from a spring some 200 feet distant; accordingly I made inquiry for the cheapest and best kinds, and was informed that lead was the best, for several reasons, but having previously learned that lead was poisonous, I hesitated; but those best informed, whom I consulted, said that the manufacturers had improved it, and made it safe, by coating the inside with tin. My fears being silenced, I sent to Boston, procured the pipe, laid down and have used it until recently. The water is pure and of the softest kind, and yet I have lost my health and nearly lost my speech, and the most scientific and experienced physicians, that I have consulted, attribute the cause of my disease to the use of that water, and say that soft water will act on lead much more than hard water, and though it be tinned, there is liable to be places that are not covered, and that it is not safe in any water, and that it acts differently on different individuals, but that on some persons it has no bad

effect. In my case it has been so slow, that notwithstanding my fears, and notwithstanding all that has been said in the *Farmer* of its deleterious effects, (and I have been a constant reader of it since its first publication,) and notwithstanding my health has been gradually failing for several years, yet I, nor the physicians whom I consulted, were aware of the cause, until paralysis seized my organs of speech.

Now I intend, should I be permitted to live till spring, to use wood, and I wish for information, through the columns of your valuable paper.

1. What kind of wood is best?

2. What size is best?

3. What size of bore is suitable for a common house pump, and

4. If it is best to peel or let the bark remain on? Any other information upon the subject will be gratefully received.

To return to the lead pipe. It is being extensively used, and the public needs more scientific information upon the subject, and I hope some of your correspondents, who have the information and ability to express it, will give it, for the good of the public. A READER OF THE FARMER.

Dayton, Ma., Feb., 1860.

REMARKS.—We have no sufficiently accurate facts to communicate to our correspondent, but earnestly hope some of our friends who have the requisite information will give it, as it is a subject of much importance.

#### EXTRACTS AND REPLIES.

##### PRESERVING BEAN POLES—CHINESE SUGAR CANE SEED—TRANSPLANTING CURRANT BUSHES.

I wish to know if you can give a cheap and convenient method of preparing bean poles, so as not to rot in the ground?

Where, and what price, can Chinese sugar cane seed be obtained?

What is the best time for transplanting currant bushes? INQUIRER.

Coventry, Vt., 1860.

REMARKS.—In the *Monthly Farmer* for February, 1860, we gave a recipe for preserving posts, stakes, bean-poles, &c., from Mr. R. G. Pardee, as follows:

"One pound of blue vitriol (sulphuric acid and copper) to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder.

"The end of the stick is then dipped into the solution, and left to stand four or five days; for shingles three or four days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask, as other liquids do, this shrinks them."

Chinese sugar cane seed may be found at the seed stores.

Transplant currant bushes in the spring, as soon as the frost is out, and the ground becomes warm.

##### FOOT AIL, OR FOUL IN CATTLE.

When the foot begins to discharge, apply a little red precipitate to the part affected, once or twice a day, which will very soon produce a cure.

##### TO CURE MILK FEVER.

If a cow at the time of coming in is attacked with this complaint, or is very weak, give her half a pailful or more of cider, with some wheat or rye bran stirred into it. If she will not drink it readily, force it down. Give it twice a day, or more.

##### REMEDY FOR BLACK LEG.

Give to a cow 4 oz. of gunpowder, to a calf less, in warm milk. Repeat the dose as circumstances may require.

Another.—Give half an ounce of saltpetre in extreme cases, otherwise one-fourth. Give it dissolved in a mess, or in water, twice a day. When the disease has advanced, so as to have the blood settle in the legs, make an incision in the legs, put in a little pulverized saltpetre, and bandage over it.

##### TO CURE GARGET.

Give in a mess, one teaspoonful, or one-fourth of an ounce of saltpetre pulverized, once or twice a day, for two days, or a piece of garget root, green, one inch square, chopped fine, and given as directed above. If no better, repeat the dose.

New Haven, Ct., 1860.

C. A.

REMARKS.—We give the above recipes, more because they come from a highly respectable source, than because we have any great confidence in them. The well-read physician or chemist can only tell whether they are not absolutely dangerous. We believe ten sick animals are cured by kind care where one is by medicine. If medicine is necessary, the advice of some person who understands its nature and effects, becomes necessary with it.

##### CORN FOR FODDER.

Can you, or any of your subscribers, tell me the best time to sow corn for fodder, and also the quantity per acre? A YOUNG FARMER.

REMARKS.—Put in some as soon as the ground is suitable in the spring. In two weeks a little more, and so on until the middle of June. It requires about four bushels of seed for an acre to sow in drills.

##### WORK ON SHEEP.

Will you inform me of a small work on the raising of sheep and cattle, or on sheep alone; something adapted to the South, (Texas,) if there is such a one published? J. H. B.

Boston, 1860.

REMARKS.—"The American Shepherd," by MORRELL, is the title of a good work on Sheep, and it is sold at the book-stores in Boston.

##### BLACK SPANISH AND LEGHORN FOWLS.

Will some one inform me where I can get Black Spanish and Leghorn fowls?

Montpelier, Vt., 1860.

B. TOWN.

## THE DISEASE AMONG CATTLE.

I have read in the *Boston Journal* about a disease among the cattle in North Brookfield, and in other places, describing it as commencing with a heavy cough settled on the lungs. I believe it is nothing else but the lung fever, so called in my native country, Holland. So far as I recollect, there is no remedy for it; but our farmers at home use as a preventive, by advice of the veterinarian school, rusty old iron, put in the water-troughs, not letting the cattle drink any other drink, and separating the sick ones immediately from the herd. Farmers should bury the cattle whole, not using the hide for any purpose, as it was proved that the disease had been carried to different places by the hides alone. Great precaution should be taken not to let diverse cattle come together.

CHARLES DEWOLFF.

East Hubbardston, March 17, 1860.

## PEAR ON THE THORN.

In reply to "S. P. W.," Dorville, R. I., as to whether the thorn is a suitable stock upon which to graft the pear, we can only give the testimony of others, having never resorted to it for that purpose. Downing says it makes a very good stock when grafted a little below the surface. It is also good on strong clayey soils, as on such stocks the pear may be grown with success, when it would not otherwise thrive. It would also come a little earlier into bearing, than on the pear stock.

We cannot say where the pear seedlings may be found.

## THE OKRA PLANT.

I hear much speculation amongst the old folks concerning a new production styled "Okra," which the New York papers eulogize highly. They cannot ascertain if it be fish, flesh or fowl. Some suppose it to be a grain, others a substitute for the potato—while others, again, conjecture it may be a fruit, resembling, possibly, the tomato. Now, Mr. Editor, can you shed any light on this subject? Do you know aught of the animal, its nature or uses? Can the Old Bay State produce it? Is it propagated by seeds, slips or bulbs? Can they be obtained in your city, and what would be their probable price?

A SUBSCRIBER'S DAUGHTER.

Pembroke, Mass., March, 1860.

REMARKS.—Okra, *Hibiscus esculentis*. It was introduced from the West Indies into the United States. The pods are gathered green and used in soups. The pods are filled with seeds and a mucilage of a bland and nutritious quality.

## ESSEX PIGS.

I saw to-day, at the stall of Mr. C. Tilton, of South Danvers, in Salem market, two pigs, unitedly weighing 1403 lbs., varying only about 20 lbs. in their weight. They were stated to be 23 months old. They were fed by farmer Bates, of Danvers, who does everything in the best manner, being reputed the best farmer in the town. In re-

ply to the inquiry how they were made to grow so well, I was answered, by the best of feed, and taking care to keep their appetites good. When tired of corn or meal, oats or some other grain was cooked for their use. I was told they were estimated to be worth \$140. I have never seen handsomer pork.

J. W. P.

March 12, 1860.

## PASTURE GRASSES.

I have a field of fifteen or twenty acres of pine plain land, so called, of a rather gravelly soil, which I wish to seed for pasture. Will you inform me what is the best kind of grass seed to sow?

C. S.

Putney, Vt., 1860.

REMARKS.—We are inclined to believe that it will be doubtful whether any kind should be sown without manure and cultivation. Perhaps you intend to add these. When this is done, sow a mixture of Timothy, Orchard, Meadow Foxtail, Kentucky Blue, Rough-stalked Meadow, Meadow Fescue and Redtop and White Clover.

## ASSESSMENT OF TAXES.

"R. B." has my thanks for admitting that I was right in saying that all property should be assessed "equally and proportionately" wherever it may be found. There is no difference between us as to the principle to be applied; the only difference is as to the application of it—that is, the intelligence and honesty of assessors. This being so, can there be any hope of a correction of errors by a modification of the law? I trow not.

P.

Feb. 25, 1860.

## A FARMER'S BAROMETER.

I read with much pleasure the article on "A Farmer's Barometer," in the last number of the *Farmer*.

Will you inform me of the price, and the source whence it may be obtained, and oblige,

Grafton, Feb., 1860.

W. G. S.

REMARKS.—The price will be from \$7 to \$40. We do not know that they are offered for sale in this market yet—but probably will be soon.

"O. B. Lee" will please observe the above.

## CHESTNUT SAWDUST.

Is the sawdust from chestnut wood good for fertilizing purposes, either to be spread upon the surface, plowed under, or for bedding stock?

Shutesbury, Vt., 1860.

E. L. PRATT.

REMARKS.—We are not able to say of how much value the saw-dust is from chestnut wood; we should use quantities of it for bedding, and as an absorbent, if we had it at hand, but should first have it thoroughly dried.

## MACHINE FOR OPENING DRAINS FOR TILE.

Will you inform me through your paper of the best machine for opening drains for tile?

Greenfield, March, 1860.

P. D. M.

REMARKS.—J. J. Thomas's, Albany, N. Y.

## USES AND VALUE OF MUCK---II.

OF WHAT MUCK IS COMPOSED,  
AND HOW DEPOSITED.

THE substratum, in one of the valleys to which we adverted in a former article, where the muck is from four to eight feet deep, and of the best quality, is to this day a compact mass of partially decayed logs; as these approach the surface, the decay is more perfect, and where one is

found in a slanting position, its upper portion has assumed the form of the other materials around it. But, generally, the muck in these pent-up valleys is entirely free from logs and roots. We conclude, therefore, that the accumulation has been gradual, occupying periods very remote, and is made up of annual deposits of grasses, shrubs, lichens and mosses, with slight but constant contributions of mineral matter from the hills together with immense quantities of the leaves of the forests which for successive ages had been shed upon their sides. When the superincumbent masses are removed, and atmospheric influences find their way to the submerged logs and roots, they, in turn, will become more thoroughly decomposed and fitted for action on the surface.

In the natural peat or muck swamps the process must have been a different one, as partially decayed logs and roots are usually found, and these are in addition to the materials enumerated above as composing the muck of valleys. These swamps were probably once destroyed by fires, prostrated by hurricanes, or touched by the "tooth of Time," after having come to maturity, and gradually crumbled to the ground, retaining vast quantities of moisture, and forming the first root-beds for a rank growth of unnumbered shrubs and grasses.

## OF THE DIFFERENT QUALITIES OF MUCK.

It will be seen from statements already made, that muck of all qualities is mainly composed of vegetable substances. These, however, are affected by the particular location in which it is found, by the kind of vegetables of which it is composed, by floods, and in some degree by mineral influences. We have preferred to call it by the popular name *muck*, which means a mass of decaying vegetable matter, because that term is at once understood by those who are principally engaged in its use. It has received, however, by scientific inquirers, several other names, and among them that which is most common is *humus*, the Latin word

for earth or mould. Stockhardt says this term is identical with decaying organic matter. In this acceptation it has for many years been known and valued in agriculture. Vegetable mould (*humus*) is the term applied to the upper black or brown layer of earth, which has been formed in forests by the decay of the leaves which fall off; the dark, fat, arable soil, containing much partially decomposed organic [vegetable] matter, is said to be rich in *humus*, while the dry, light soil, in which it is wanting, is said to be poor in *humus*. The farmer knows that, contrary to what happens in his woodlands, the *humus* diminishes in his fields, and so much the more rapidly as the crops are more abundant, and he knows that fields rich in *humus* are, as a general rule, more fertile than those which are poor in *humus*. \* \* \* Accordingly, by the general term *humus* we must understand a mass of brown, decaying matter, partly soluble, partly insoluble, partly acid, partly neutral, which, with the uninterrupted presence of air, water and heat, may be still further decomposed, and thereby *carbonic acid* and water evolved. *Carbonic acid* and water are indispensable to the nourishment of plants; hence, in a soil rich in *humus*, the plants will grow more vigorously, because they find there, and can absorb by their rootlets, more of these two nutritive substances than they could in a soil poor in *humus*. *Humus* exerts, moreover, a beneficial influence upon vegetation, because it loosens the soil by the development of *carbonic acid*, because it possesses the power of attracting water from the air, and of retaining it for a long time, and because, by means of the acids contained in it, it is able to abstract from the air, and also from manure, the third means of nutriment for plants,—*ammonia*.

In the extensive low muck swamps, the quality of the material is often widely different; some parts being traversed by running streams which wash away the rich soluble portions and leave but the coarser fibres, and others composed of particular kinds of wood which impregnate the whole mass with acids that are unfavorable to field crops. A striking illustration of this may frequently be seen when these swamps are in the process of being drained, and long ridges of muck are thrown up on the edges of the ditch and allowed to remain undisturbed. If thrown up in the autumn or winter, they will present particular points the following summer, covered with a rank growth of weeds or grasses, and indicating great vitality in the muck below, while other portions remain entirely bare, or at best are partially covered with stunted fungi or moss. The spots barren of vegetation are sometimes covered with a whitish-yellow substance, light and flocculent, or with sulphate of iron. Much of the latter description spread upon pasture, or mowing lands, has

been known to prevent the growth of grass for many years in succession; and when plowed and planted, aquatic grasses and plants spring up in profusion, and can only be eradicated by a most careful and expensive process of cultivation. Indeed, cases have come under our own knowledge, where the cost of cultivating a corn crop has been doubled by the introduction of these plants in using this kind of muck before it had been seasoned or composted; and it was only by high manuring, constantly stirring the ground, and the most careful culture, that they were finally subdued. If a few plants only are suffered to come to maturity, their seeds will find their way to every wet spot on the high or low lands in their vicinity, and before the cultivator is fully aware of the evil, an inroad of intruders will be established upon his premises, which he will find it exceedingly difficult to eject. The farmer must exercise the nicest discrimination in regard to the matter of quality in the use of muck, or he will be led into errors which may require years of patient toil to correct.

*For the New England Farmer.*

#### DISEASED APPLE TREES, &c.

MR. EDITOR:—In your December number of the monthly *Farmer* of 1859, you did me the favor to publish a communication which I sent you respecting the condition of my apple trees. I have been much gratified by the interest manifested in the subject by several individuals who have replied to it, giving their opinions of the cause of the trouble. There is a wide difference in those opinions, and with all due deference to the better judgment of the writers of the articles, I think no one of the theories satisfactorily accounts for the cause that has so deeply, and I fear fatally affected my trees. Mr. Bassett, of Ashfield, in an article in this same number, expresses the opinion that the bark borer is the enemy I am suffering from. In your number for March, 1860, he has an article on the subject, in which he refers to your Sandy River correspondent, a slight mistake, I presume, for Still River, [No, *Sandy River* is right.—*Ed.*] in which he holds to the same opinion, if I understand his meaning. I cannot see, on this theory, how to account for the circumstance of the trees being invariably affected on the south side, and the black, scorched appearance of the bark the whole distance from the lower limbs to the roots of the trees, an operation too extensive I should think, for any borer to perform. I will here add some facts in relation to the age and size of my trees about which I was not sufficiently explicit in my communication, and for want of which knowledge "O. W. D.," of Goshen, Vt., was led into a misapprehension in his article in your February number. My trees were set out where they now stand in the spring of 1844, and eight years afterward in the spring of 1852, finding that the fruit was not what I expected, I had them engrafted, at which time a large part of the top was cut away. The elevated position of the trees exposed them to the action of the wind, which has

given them an inclination toward the northeast, and also the loss of nearly the entire top by engrafting has left the body exposed to the full action of the sun. The grafts, although they took and grew well, have not attained to nearly the extent of top of the original tree, affording very little shade. The size of the trees, which are now sixteen years old from the nursery, is from five to six inches in diameter, and some of the spaces left bare by the loss of the bark are one and a half to two feet long and four to five inches wide, and present appearances indicate a further extension of the parts affected. With a knowledge of the facts, "O. W. D." will perceive that his views are not applicable to my case, except, perhaps, in the application of manure to the trees and the cultivation of the land, and the article of grafting wax to be applied to the parts affected, and that it seems to me would be rather an expensive article to be used on so extensive a scale as would be required. Is there not some other article, less expensive and more easily prepared, that would do as well for the purpose? I propose to close over the parts affected with something, and shall feel obliged for any information on this point.

Mr. Whipple's theory, of Lowell, is the agency of heat and cold causing the trouble complained of. Looking to all the circumstances of the case, cannot a satisfactory solution be found in the agency of the sun alone, causing all the mischief; to exposure of the parts affected by injudiciously destroying too great a share of the tops of the trees at the time of engrafting? I will leave these suggestions with the single remark, that, if my unfortunate experience should prove a warning to any to avoid the mischievous practice of too much pruning, especially on the side of the trees most exposed to the action of the sun, I shall feel gratified. I hope to hear again from some of your correspondents who may be able to shed some new light on the subject.

L. S. H.

*Still River, March 20, 1860.*

THE ONION MAGGOT.—Mr. David Fisher, of Walpole, N. H., succeeded, last year, in raising a good crop, after having had his onions destroyed by maggots for a number of years previously. He prepared the ground carefully, plowing, manuring, raking, &c.; he then covered the surface with old pea brush, and other combustible materials, and burnt them. Then sowed the seed. On his bed, 12 by 3 feet, he placed three bowls about half full of sweetened water, as soon as the onions were one or two inches high. Each morning the surface of the water was cleared of the flies and insects that had been caught, adding a little water occasionally. On part of his bed he raised some excellent onion seed. We find his statement in the *Boston Cultivator*.

WHEAT CROPS.—Mr. G. W. WILSON writes us from Fitzwilliam, N. H., that he has raised wheat on his farm for forty years in succession, and has never failed of getting a good crop, the largest of which was 28 bushels an acre.

*For the New England Farmer.*

### RENOVATING WORN-OUT LANDS.

MR. EDITOR:—Among the many pleasing evidences of that "interesting revival" in agriculture, referred to in the *Farmer* of the 11th ult., is the increasing attention to the subject of this article. *How shall we reclaim our worn-out fields and pastures, and bring them back to their former fertility?* has become one of the great questions of the times. Any facts which will shed light upon it, I may reasonably suppose, will be acceptable to an increasing number of your readers.

During the past summer I visited the south shore of the east end of Long Island. Having resided there during the years of 1833-6, I was struck by the manifest improvement in the farms. It may be extravagant, but it seems to me that, since that time, they had improved at least *twenty-five per cent.*, although in the main, I think then, as now, the farming of Long Island would compare favorably with our own. To inquiries, as to the method adopted for improving their farms, I found that the farmers there depended more than we do on generous manuring. To the question, whether they placed great reliance on seaweed and fish, as manures, they replied that although used to some extent, as formerly, they had less confidence in their permanent good results. Their chief resources were their "barn-yards" and "hog pens," with a liberal use of ashes and bone dust, although their ashes must be obtained from Connecticut and their "bone" from Boston. Peruvian guano is employed to some extent as a stimulant, but not very generally used. As the subject of the "profits of farming" is now attracting so much attention, I presume some light might be shed upon it, if the *facts*, developed by the experience of these Long Island farmers could be fully understood. And it should be born in mind that they are not "gentlemen farmers," in the usual sense of that cant and much abused phrase, (although in its true and legitimate signification they are eminently so,) but hard working men, who are obliged to get their living and make their money from their farms.

But I took my pen to give some account of the experiments of a friend of mine, Col. B. H. FOSTER, of So. Hampton, in renovating some old and worn-out pasture lands; of which a lot of fifty acres was bought by his father for \$70. This land he describes, as "so run down by what we call the skinning process, that it produced little or nothing, had become overrun with moss, whortleberry and barberry bushes, and was not considered worth fencing." He commenced the process some eight years ago, and has succeeded in reclaiming some 20 acres. His "object has been," he says, "to make the land productive without an unwarrantable out-lay for manure, \* \* \* by plowing in whatever [he] could get to grow upon it, and applying a small quantity of stimulating manure, that would produce a crop, and pay for the manure, labor and expenses, and leave the land in an improved and better condition."

Acting, however, without the benefit of others' experience, he has been compelled to try experiments for himself. From these trials and experiments, he has arrived at the following conclusions:

1. It is best, by planting with corn or potatoes,

one or two years, to pulverize the soil. His plan is to sow broadcast 150 pounds of Peruvian guano per acre on the sward, as near the time of plowing as possible—indeed, to sow as they plow. He then applies four two-horse loads of good manure from the hog-pen, if for corn, in the hill. He thinks it best to pursue this course two years in succession. The following spring, plow as soon as the season will admit, apply broadcast 25 bushels of bone-dust, sow  $3\frac{1}{2}$  bushels of oats, harrow thoroughly, then sow 6 pounds of clover seed, and roll it smooth. Take off the crop of oats, and if wanted, let it be used as pasture in the fall. The next spring the clover is allowed to grow as if for mowing, till the middle of June; a roller is passed over it, and then it is plowed in, the furrows pressed down by a roller, and then  $1\frac{1}{2}$  bushels of corn is sown broadcast, and thoroughly harrowed in. When it has attained its greatest height and bulk, or when it is fairly "spindled," it is then broken down by a roller and plowed under. By a very simple contrivance of a chain attached to the whippetree and one of the handles of the plow, near the ground, the whole is completely covered. There are then, if the experiment is successful, two heavy green crops plowed in during the second season; of course adding a large amount of vegetable matter to the ground so treated. During the first season, the crop of oats is taken off, and this helps to meet the expense of the experiment. The same process may be repeated during the next two seasons; or other crops may be put in.

2. "After trying buckwheat, oats, rye, corn and clover," he says, "through a succession of seasons, I have come to the conclusion that clover and corn, as above described, is decidedly best for the soil of Long Island."

3. *Cost.*—Col. F. gives the following as a rough estimate of the profit and loss account of an acre treated as above described:

To 150 lbs. of guano.....	\$4.50	Dr.
To 4 loads of manure.....	6.00	
To plowing.....	1.50	
To harrowing.....	.75	
To planting.....	2.75	
To hoeing and cultivating.....	2.50	
To cutting and gathering.....	4.00	\$22.00
By 40 bushels of corn, at 75c.....	\$30.00	Cr.
By 2 tons corn stalks.....	6.00	\$36.00
Profits first year.....	\$14.00	
Profits second year.....	14.00	\$28.00
THIRD YEAR.		Dr.
To 25 bushels of bone dust, 41c.....	\$10.25	
To plowing and harrowing.....	2.00	
To harvesting and threshing.....	3.00	
To $3\frac{1}{2}$ bushels of oats for seed.....	1.58	
To 6 pounds of clover seed.....	.60	\$17.43
By 45 bushels of oats at 45c.....	\$20.25	Cr.
By 1 ton of straw.....	6.00	\$26.25
Profits of third year.....	8.82	
Profits for three years.....	\$36.82	

He says: I have given in the above estimate as small a crop as I have ever taken under the process here described. Several years my yield of corn has been at the rate of 50 bushels to the acre, and my general yield of oats has been at the rate of 50 bushels to the acre.

In this simple statement of *facts*, we have materials afforded for an answer to the question with which I commenced this article. And why shall

not the farmers of the Commonwealth and New England go and do likewise? No great outlay of capital or labor is required. Would it not be better for our farmers to plant fewer acres, manure more highly what they do plant, and subject the balance to a treatment like that above described? The crops would be equal, while the whole would be left in better condition.

Franklin, March 3, 1860.

S. H.

*For the New England Farmer.*

#### USE AND APPLICATION OF MANURE.

MR. EDITOR:—Having seen the offer of the State Agricultural Society for the best results from certain experiments with manure, and not calculating to try for the premium myself, because I should be obliged to waste more manure than the value of the premium, and having tried the experiments required, years since, to my full satisfaction, I therefore thought I would state some of the many experiments which I have tried. My father always plowed his grass land in the spring, and then put on his winter manure and harrowed it in, and when I came on the stage, I followed the same course for some years, though very much dissatisfied with the manure lying on top of the ground to dry up and waste.

Some fifteen or twenty years since, I commenced some experiments with my winter manure; I took a field of about two acres of grass land in the spring, and put on the manure from my barn cellar, at the rate of thirty-two loads to the acre; on to one-half before it was plowed, and on to the other half after it was plowed, and harrowed it in, then planted with corn, without any manure of any kind in the hill. The result was, as much corn where I plowed the manure under, as where I put it on top, and twice as many turnips, though the corn looked badly where I plowed it under the fore part of the season. I next tried six acres in the same way, with the same result. I have tried experiments with manure, and used it in almost every possible way, and have come to the conclusion, that the only true way to use long manure, is to plow it under at the depth of from six to nine inches, according to the soil; and I have invariably found that I got as much corn, double the turnips, and a great deal better after-crops of wheat, oats and grass. I think I have improved my grass lands, since I have plowed my manure under, at least twenty per cent. No one has seen any coarse manure left on the top of the ground on my farm for the last ten or fifteen years, and I would recommend, after occasionally throwing in a little loam among the manure in the cellar through the winter to soak up the urine, not to disturb it, until it is loaded to carry into the field, and then plow it under as quick as possible.

GEORGE M. BARRETT.

Concord, Mass., March 17, 1860.

**OHIO RADISH SEED.**—A correspondent of the *Prairie Farmer* says that radish seed that has been kept six years or more, will produce radishes of a better quality than new seed.—*Genesee Farmer*.

#### THE OLD FARM-HOUSE.

In a little grove of shade trees,  
Stands a farm-house, brown and old,  
With a wealth of vines around it,  
Gemm'd with flowers of red and gold;  
By the path that makes a circle  
Of white sand around the lawn,  
Grow sweet Timothy and clover,  
Rosy as a June-day dawn.

Around its door pale morning-glories,  
Jump-up Johnnies, dahlias, pinks,  
Cluster—concentrated beauties,  
Married by a thousand links;  
Links of love, the works of nature's  
Mystery of handicraft;  
Links of glory, through which fairy  
Argosies of perfume waft.

And the gate that swings before it,  
And the fence as white as snow,  
Stand on variegated cushions,  
Which the sun-fire sets aglow,  
Crowning them with many colors—  
Yellow, purple, green and blue—  
As if rainbows there had fallen,  
Melted into rarest dew.

On its roof the greenest mosses,  
Catch the shadows from the trees;  
On its sides red honeysuckles  
Make their courtesies to the breeze;  
And the ever-nervous willows,  
Standing near the garden's bound,  
Throw a web of shade fantastic  
On the clover-mantled ground.

O'er the well an arch of grape-vines,  
Formed with heaven's directed care,  
Chains the shadows to the water,  
Making cool the summer air:  
And a tiny church, its steeple  
Piercing through a bower of leaves,  
Is a sure and sacred refuge  
Where the wren her carol weaves.

*For the New England Farmer.*

#### ORDER IS ECONOMY.

Very few there are, in any kind of business, who make a gain of money, without habits of order in their business. Some seem inconsiderate enough to suppose that orderly habits are more important to professional men, merchants, mechanics, &c., than to farmers. I think very differently.

With farmers in general, enough depends upon the question of order about the barn and house to decide the fate of each one, as to wealth or poverty. The great majority of country farmers, who become the positive owners of their homesteads, in New England, make slow, but steady advances in property. At first, their increase of property is a very small amount yearly. And this small amount, at first, is really the procuring cause of the larger increase which may follow. Without the small increase at first, the larger increase to follow is entirely out of the question. And this small increase, and oftentimes much more, depends upon strict order about the house. Again, it depends upon strict order about the barn and tool-house; and again, it depends on strict order about the farm.

The positive advancement of most farmers, in property, is within the line of \$50 yearly, if not within that of \$25. If a man can, upon his own



farm, make a clear advance in property of \$50 per year, he may soon become an independent farmer. If he can make a clear advance of \$25 yearly, he has no reason for discouragement. He will have no reason to want to turn shoemaker, and have to "strike" at his boss. Meagre indeed must be that house, and limited that family, where strict order will not be worth more than \$25 yearly. In a house where nothing knows its positive place, where you can find nothing without hauling everything over, where every matter is without definite regulations, where arrangements are not a part of a positive system, the waste of time, the waste of substance, the unnecessary wear and tear, with the frettings and frustrations consequent, will soon measure a dead loss of \$100. And all such loss is positively worse than so much money thrown away.

The loss of only ten minutes of time per day, in 312 days, amounts to more than five full days, of ten hours each. At \$1.50 per diem, it would amount to \$7.50. A large portion of laboring men are losers of more than five times ten minutes per day, in time, for want of strict "order about the house." Add to this, the other evils and losses consequent upon a want of strict order, and it will be quite sufficient to keep a poor man poor. Farmers's wives, if not some other men's wives, may be the mothers of prosperity or poverty, to their households.

Order is economy, at the barn, and all over the farm.

Mr. Editor, I perceive that I have got hold of a stump which has a great many roots that might be pulled: and I am not sure but they would be dry roots to your readers; and so, that I be not further tedious to you and them, I will finish this, with a wish that some one who is capable of doing good service on a dry topic, will examine the subject, item by item.

COMINGS.

Lee, N. H., 1860.

#### MULES IN CENTRAL AMERICA.

One of the most striking characteristics of the mule is his aversion to the ass, and the pride he takes in his relationship to the horse; which instincts are met by obtrusiveness in the ass, and by indifference in the horse. If an ass at any time—urged by the vanity peculiar to its race as related to the mule—happens to fall in with a drove of mules, he will, in all probability, be kicked and lamed by his proud relatives. A horse, on the contrary, takes a distinguished position in a drove of the mules. The latter crowd around him, and follow his movements, exhibiting a violent jealousy, each trying to stand nearest to their high-bred relative. The instinct is employed to keep together the droves of mules, on a journey or at pasture, by putting a mare to the drove, with a bell round her neck, and called the bell-mare. This animal is led day and night by a cord, and the whole drove is thus kept under control, and will not leave their queen. It is, therefore, very difficult to separate the drove. The man who leads the mare is instructed, in case of an attack from the Indians, to leap upon the back of the animal, and take refuge in the wagon encampment, whither the drove is sure to follow him. Even if the Indians succeed in separating any from the drove,

they find it difficult to carry them off. The animals incessantly attempt to turn back, and the travellers are thus enabled to overtake the robbers, and recover the stolen animals. The Indians, in consequence, use every means to get possession of the mare; and if they succeed in this, the whole drove is lost to the owners. If several horses are in a drove of mules, the danger is that the latter becomes dispersed; and this is the reason that, in these journeys, saddle-horses are not allowed to go loose, but are led by a cord.—*Froebel*.

#### TRANSACTIONS OF THE MASS. SOCIETY FOR PROMOTING AGRICULTURE.

The Second Part of Volume I. of the new series of publications of this society is issued in the form of a pamphlet, which, together with the first Part, make 300 pages. The first impressions of the word "Transactions," as connected with a Society, might not suggest to all minds the character of the contents of this publication, which instead of being a Journal of Proceedings, are three Essays: The first, some sixty-four pages, is entitled, "Agricultural Survey of Middlesex County, by JOSEPH REYNOLDS, M. D.," of Concord; the second, some forty-two pages, is entitled "Agricultural Education, by HENRY F. FRENCH;" and the third, some thirty pages, is entitled "Agricultural Miscellany, by R. S. FAY," the Secretary of the society, the main topic of which is "Grass and Pasture Land;" and specifications of an offer of "Premiums for experiments with Manures," amounting to \$225. The experiments to be rewarded by this liberal appropriation are the same as those required by the Board of Agriculture of the County Societies of the State, according to the document from the Board, published in the January number of the monthly *Farmer* for 1860, p. 10.

#### AGRICULTURAL SURVEY OF MIDDLESEX COUNTY.

This paper, by Dr. Joseph Reynolds, is illustrated by a Geological Township Map of the county, and discusses its Geography, Geology, Meteorology; Changes that have taken place in the Husbandry of the county; Present Staple Products of the county, and methods of culture, with remarks on the Breeds and Management of Cows; Marketing Milk; on Grass Culture, and Restoring Pasture Land; on the culture of Indian Corn, Potatoes and Grains; Fruit, Root Crops, Market Gardening, &c. To those acquainted with the industry and judgment of Dr. Reynolds, the foregoing statement of topics will suggest a good idea of the value and interest of this essay. The writer says, that he believes this is the first attempt to present in a connected view an account of the agriculture of an entire county in the State. If the Society shall be able to publish a similar "Agricultural Survey" of each county in the State,

its "New Series" of Transactions will present, in a most convenient form, a wide range of facts, which are now so scattered in volumes of history, in scientific works, and in the unwritten present, as to be, in many particulars, quite inaccessible to the ordinary inquirer.

#### AGRICULTURAL EDUCATION.

Mr. French inquires, First, Who are to be educated? Secondly, What is to be taught? Thirdly, By what means? These points are separately considered and fully discussed. Whatever diversity of opinions may exist, as to the soundness of the reasonings, or as to the practicability of the conclusions of this essay, we think all will agree in thanking the old Massachusetts Society for the Promotion of Agriculture, for presenting such a readable dissertation on the vexed question of Agricultural Education.

In his first two pages, the writer frees his own limbs from the manacles of European models and examples, and declares, "In vain shall we look abroad for any system adapted to our wants." If he can as easily knock these chains from School Committees and Boards of Managers, we believe that an Agricultural Education such as Massachusetts, and such as the whole country demands, would grow up of itself. Farther, we believe such an education is already growing up, and that for years it has bravely withstood the whirlwind of foreign precedent, which has so industriously blown up the bubbles of American agricultural colleges. Our meaning will be understood by any middle-aged farmer who will contrast the means of agricultural education enjoyed by his grandfather, or father, with those of himself or his children; including by the term "means of education," the books and papers, which are as much educators as the school-masters. Mr. French gives a statement of the present condition of the agricultural college of the great State of New York, chartered in April, 1853, whose buildings are "to be erected for 350 students;" of the People's College, near Havana, same State; of the Farmers' High School of Pennsylvania; of the Agricultural College of Michigan; and of one or two Southern institutions of somewhat similar character, and says, that "as yet they furnish no strong evidence that success will attend expensive and magnificent enterprises of this kind."

Although we cannot attempt to give any outline of Mr. French's treatment of the subject, we cannot pass over his remark that "in any plan for Agricultural Schools, which may be adopted, arrangements should be made for the fullest participation by female pupils in their advantages."

His conclusions upon the whole matter are briefly stated in the following propositions:

"1. A system of agricultural education is imperatively called for in Massachusetts.

2. Our common schools form the proper foundation for such a system.

3. Foreign countries furnish us no suitable models for agricultural schools, because of the differences in general education, as well as in the structure of society and government.

4. Existing agricultural colleges in this country furnish no such evidence or promise of success, as to encourage at present, the establishment by us of a large State Institution.

5. A school of Agriculture, with an experimental farm, should be established in each county."

*For the New England Farmer.*

#### HOW I PLANT, AND WHY I PLANT POTATOES AS I DO.

I select as dry, porous soil as I have, using no compost dressings of any description, either before or after plowing, which I do in a most thorough manner to the depth of about eight inches; (deeper would be better;) furrow according to variety of potato from two and a half to three feet apart, and five to six inches deep; seed fifteen to eighteen inches from each other, two eyes on a piece, and cover with a plow. If the soil is mellow and free from stones, I use bushes, which is the most expeditious way of covering, and leaves the field smooth for the ox-harrow to pass over it as soon as the potatoes begin to break ground. This harrowing is equal to one hoeing, and most effectually destroys the weeds, without displacing one potato plant in a thousand, if planted at a proper depth. The reason for avoiding rich moist soil and dressings of compost, is, that I feel comparatively secure from the rot. I have not for many years escaped the rot when using compost dressing from cattle or hogs on any soil, and almost invariably have sound potatoes without it, on dry, porous soil, unless I use too much seed in the hill. Several times since the potato disease has prevailed, I have experimented with cut and uncut potatoes, with the same result in every case.

In 1848, I selected some of the largest and soundest potatoes I had, and planted them by the side of others that were cut with two eyes on a piece, all being of the same variety; the result was double the quantity of potatoes at digging time from the large seed, but three-fourths of them diseased, while the others were sound. The same experiment was made the past year with like results, which, of course, satisfied me that it is best for me to plant cut potatoes in preference to whole ones. The reason of this I conceive to be that the disease in some way is developed in the seed planted, and that the sooner you compel the plant to seek for its food from the soil, the better the chance to escape the disease, and harvest a sound crop. With me, wet soils and decomposing manures are fatal to a sound crop of potatoes. For the most part I use plaster in the hill, or on the set, but prefer about 200 lbs. of guano mixed with an equal quantity of plaster (to fix the ammonia of the guano) to the acre. This, scattered about the stalks at the second time of hoeing, has usually paid well. I hope this may call out others' experience and theories, so that we may, by comparing one with another, arrive at some positive and useful results.

J. COE.

Rochester, March 13, 1860.

*For the New England Farmer.*

#### PIPE FOR CONDUCTING WATER.

MESSES. EDITORS:—I see there is considerable inquiry as to what kind of pipe to use. As I follow the business of laying pipe, I will give my opinion. First see what kind of land it is to be laid in. If it is brimstone land, it will eat the pipe. There is some water that eats boxes of composition, and will not eat lead. Block tin is the best for running water; but for pumps it is worthless, because it is brittle, and will not hold its own shape. I have taken out most all in this vicinity, and put in lead. Where lead will stand I should use it. Wood is good where the land is not heavy. Your correspondent from Maine asks for answers to four questions. 1. What kind of wood to use? I should use pine, if I could get it. I have known spruce to do good service. 2. What size? Anywhere from five to eight inches in diameter. 3. What size bore? For logs 4½ inch bore; for pumps, three inch. 4. Bark on, or off? I think it will not make any odds in the ground; but for wells I should peel the logs; but in all cases they should be laid below frost. There should be iron rings drove round the head ends of the logs to keep them from checking.

If water or land works on the pipe, which you can learn by others in the vicinity, I should abandon it at all events. I know of one case where lead was used, the pipe was consumed, and it was taken out, and iron put in; and the iron soon rusted so as to scale, and filled it full; this was taken out, and last fall, I put in lead, lined with block tin, at a great cost, and I fear it will not be lasting; it seems to be tender. The new article of pipe, made of glass, I know nothing about; if it could be used, I doubt there being any alkali that would operate on the glass. There is one other way in which it is said you can tell whether water will affect lead pipe; it is to take a tumbler of water, and put in lead, and let it stand several days, and you can see if the lead corrodes or not; it is said if it does, you can see it visibly. If block tin cracks, it is impossible to repair it; therefore, I should not use it only in running water. I think your correspondent from Maine is a little mistaken about soft water affecting lead; in all cases where I have repaired eaten pipe and boxes, the women complain of hard water; at any rate it is so in this vicinity. A SUBSCRIBER.

Potterville, N. H., 1860.

*For the New England Farmer.*

#### ASHES AS A MANURE.

Wood ashes are good, on sandy or gravelly soils, where the sub-soil is open, and the surface soil is not heavy and inclined to bake, as the saying is. The more open, sandy and loose the soil is, the more ashes will benefit it. They will make grass grow for a few crops on heavy soil, but they will tend to make the soil heavier, and run into moss. Sand is better for clayey soils than ashes. Leached ashes may as well be spread on grass lands clear; but unleached, they should be mixed with two or three times their bulk of some heavy soil, the more clayey the better, and lie in a heap until the whole mass becomes leavened with the ashes, though not leached through to waste. If salt can be obtained quite cheap, I think it would pay

to put in a bushel to ten of ashes. Fifty bushels of ashes, properly applied, is enough for an acre; and on ground to which they are suited, they will ordinarily produce near an extra ton of hay to the acre, for three years, and leave the ground in better condition, than at the time of the application of the ashes. They will in fact produce a permanent change for the better, in sandy soils; but on heavy land to which they are not suited, though they may make a few crops grow better, they are, in the end, an injury. They may be advantageously applied to grain crops, potatoes and corn; but I think, as a general thing, more benefit will be derived from them applied on grass, than any other crop. C. WHITING.

Johnson, Vt., 1860.

REMARKS.—The seed sent with this is, undoubtedly, Hungarian grass seed.

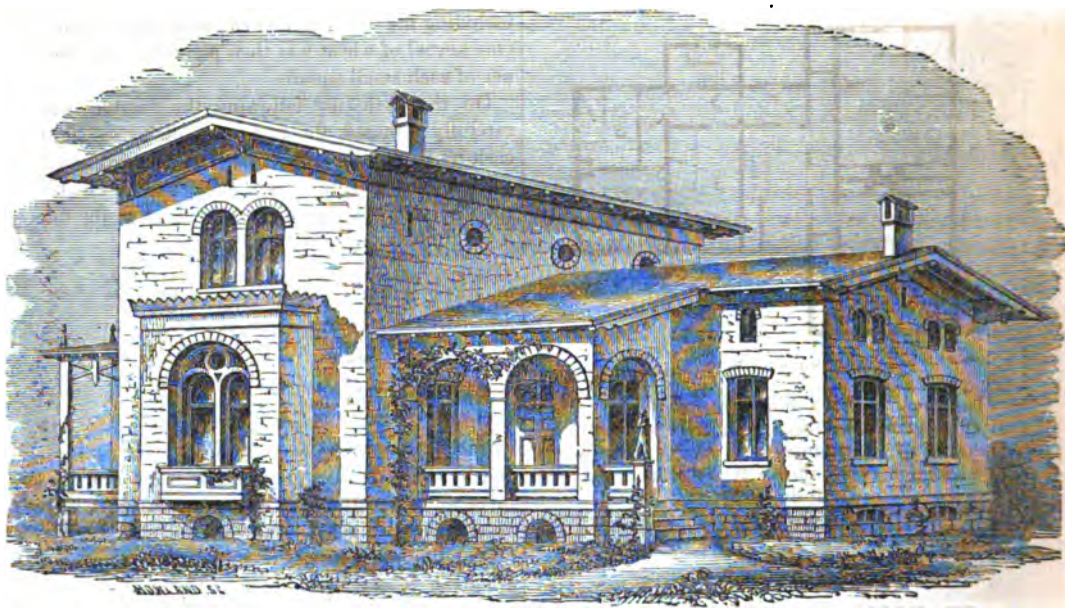
*For the New England Farmer.*

#### THE CATTLE DISEASE.

MR. EDITOR:—In your valuable journal, (the *N. E. Farmer*), of the 17th ult., I have been shown a communication on the "cattle disease." I have read it attentively. It is not my custom, sir, to reply to any newspaper articles, unless the name of the writer is affixed. My signature appears to all my communications. When writers, like "Rusticus," who animadvert on my communications, make themselves known, I am always ready to reply, if the case requires it. My reason for being silent, at other times, is so apparent, that it is hardly necessary to say that if I should adopt a different course, I should probably have more business on my hands than time to attend to it. If your correspondent wishes to discuss the subject with me, he can do so, when I am informed by his signature with whom the discussion is carried on. And this I shall do, not for the purpose of exalting myself, or of gaining notoriety; but only for the "common good," and so elucidate truth. "Rusticus" has, as it appears by his communication, mistaken the meaning of my article in the *Daily Advertiser*, by writing about the healthy function of the lungs, which I described as in a diseased condition. I should be pleased to continue this subject, provided it can be done in a fair and gentlemanly way; and that my meaning may not be purposely misunderstood. March 27, 1860. CHAS. M. WOOD, V. S.

FIRST AGRICULTURAL SCHOOL.—The *New American Cyclopædia* states as a historical fact that the first agricultural school was established in 1790, near Berne, in Switzerland, by Emanuel von Fellenberg; that it is to his "illustrious example and enthusiastic labors, that the civilized world owes the present advanced state of agricultural information. The benevolent enterprise of Fellenberg was due to the impulse given to his mind in early youth by his mother, a lady of enlarged sympathy, active, religious principle, and intellectual ability."

SCIONS.—Mr. A. G. SHELDON, of Wilmington, thinks he has such scions of the Red Astrachan apples as are inquired for by "G. J." of Somerville.



### A SUBURBAN RESIDENCE.

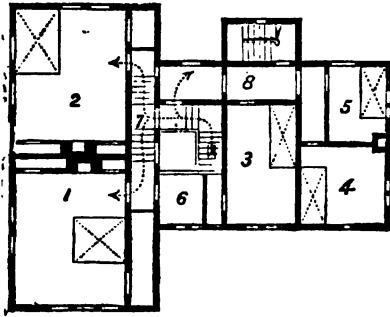
A short time ago we presented to our readers a representation of a house designed in the "New American Style" of Saelzer & Valk. We give above another example of the same style, on a larger scale and designed to be built of brick. There are some things in the arrangement of the interior, and in the external appearance of this dwelling, which are not such as we should choose for our own residence, but as the matter of building is one upon which few persons are apt to take advice, we will simply present these plans, with the architect's statement, and withhold any criticism we might be disposed to make.

The accompanying drawing represents the home of a farmer situated near Albany, N. Y. The main features and characteristics of the style are fully carried out, the plan comprising the owner's requirements and his desired arrangement of rooms, &c. As regards its adaptability for a farmer's home, we leave it for the many readers of this journal to judge. We ask careful examination of the plan, for it was required of us to produce the greatest amount of internal comfort, and at the same time produce a beautiful exterior, for the sum of \$4500. On reference to the plan—A is the entrance porch; B, vestibule; C, parlor; D, dining-room; L, hall; E, kitchen; F, kitchen pantry; G, store-room; P, rear hall; M, rear entrance; O, back stairs; H, bedroom; I, dressing room; K, closet; R, verandah; S, bay window. It will be seen that the kitchen and accessories are distinct from the other rooms. The servants' stairs, O, ascend directly from the kitchen, while communication between the dining-room and kitchen is quite convenient. Dining-room has two closets; bedroom has bay window, this room being used as a sewing room; bedroom wing is only one story high; kitchen is well lighted on three sides, having dressers, boilers, sink, &c. The second story plan has five bed-rooms and bath-room, stories of main building are 12 and 10 feet high; those of wing 8



FIRST STORY PLAN.

ft. 6 in. and 8 ft. high; the colors used in painting are dapple gray for the brick walls, light sienna for the wood-work, and blue for the roof, the combined effect being very interesting.



SECOND STORY PLAN.

In conclusion, we hope the subject of a new style will gradually become of more and more importance to our countrymen, and that humble as our efforts may be, they will not remain unappreciated. Respectfully,

SAELTZER & VALK, Architects,  
Bible House, Astor Place, N. Y.

#### QUANTITY OF SEED TO AN ACRE.

Many experiments have been made, both in this country and in Europe, to ascertain, with precision, the quantity of seed necessary to insure the greatest amount of produce from a given surface. It is true that circumstances will often render it quite necessary to vary the quantity, even upon the same soil; and in Great Britain, where the climate, soil and mode of cultivation differ greatly from ours, rules and usages have been introduced which are not practical with us. As a general thing, however, the allowance of seed is there far more liberal than in America. In the cultivation of wheat, for instance, from three to four bushels of seed are allowed per acre. Six bushels of flax seed, and from three to four bushels of oats are sowed, and so on through the entire list of vegetables, whether roots or grains.

A gentleman in the State of New Jersey, some years since, being desirous of ascertaining some facts relative to seeding land, instituted certain experiments, which he detailed in a paper read at the winter meeting of the "Yates County Agricultural Society," and of which the following is an abstract:

He sowed on the 23d of September, 1846, four diagrams with wheat. The soil had been subjected to a summer fallow, and had been plowed five times during the summer. The ground was prepared for sowing by finely pulverizing it with a hoe and a rake. Four diagrams were then correctly measured off, each two feet square, leaving a space of about six inches between each. The

squares were then numbered and subdivided as follows: No. 1, in squares  $1\frac{1}{4}$  inches each way; No. 2, in squares of 3 inches; No. 3, in squares of 4 inches, and No. 4, in squares of  $4\frac{1}{4}$  inches, including the outside lines of each large square. One kernel of wheat was then planted in the corner of each small square.

On the 13th July following, the produce was carefully gathered, the four parallels being kept each by itself; the wheat was shelled by hand, and the number of grains in each parcel correctly counted, and the results, were as given in the following table:

	No. 1.	No. 2.	No. 3.	No. 4.
No. of grains planted.....	289	81	40	38
No. of grains that grew.....	203	60	40	80
No. of heads.....	286	138	112	104
Average number of grains per head, .26	35	30	30	43
Whole number of grains.....	7458	4765	4452	4399
Yield per acre in bushels.....	108	69	64	63
Seed per acre, in bushels and lbs. . . . .	b. lbs. 4 12	b. lbs. 1 10	b. lbs. 42 1	b. lbs. 81 1

On the 17th of August, four ounces of this wheat were weighed accurately by sealed scales, and by counting all the grains, it was found that there were 780 grains in one ounce, from which an estimate of the different yield, and also the rate of the different amounts of seed per acre. These are given in the table above. The soil, in this case, was a clayey loam which had never been manured, and had been kept for pasture during the six preceding years.

It is very desirable that the exact quantity of seed necessary for an acre should be accurately ascertained; but this can be effected only by a series of carefully managed experiments, for which practical men, with all the cares of a farm, can scarcely have the requisite time. Men of science, attached to our learned institutions, and those having professorships in our agricultural establishments, would do well to turn their attention more directly to this subject.

*For the New England Farmer.*

#### THE CATTLE DISEASE.

MR. EDITOR:—The following communication, which appears in the *New York Journal of Commerce*, is one of much value, and the experience of the writer in his successful treatment of his animals is worth consideration, whether the disease was contagious pleuro-pneumonia or simply a pleuritic-pneumonic disease, not of a contagious character. If I possessed animals showing the first symptoms of this disease, I should treat it precisely in the same manner. The causes of the malady are correctly given, with one addition, however, —*too low keeping* is as likely to cause the disease as *too high keeping*. If a diseased animal had, therefore, been insufficiently fed, his food should be increased. F.

*Rhinebeck, March 20, 1860.*

TO THE EDITORS OF THE JOURNAL OF COMMERCE.

Gentlemen:—Having seen in your yesterday's paper the account of a disease among the cattle



in Massachusetts, I will give you an experience of my own, in the hope it may be of some use.

About five years ago, I had a herd of fifty cattle attacked by a disease which destroyed fourteen in about ten days.

I found a description of the same symptoms in the "Pathologie Bovine" of M. Gelle. One instance recorded by him occurred near Neufchatel in 1830, and attacked the herds of one hundred and one proprietors. He calls it contagious pleuro-pneumonia. The animals had cough, fever and diarrhoea, ending with gangrene. The treatment recommended is, to take four quarts of blood from the diseased animal, and after the interval of a day, to make another smaller bleeding. Two pounds of glaubersalts are to be dissolved in a gallon of barley water, and a pint given in every three hours.

After using these remedies, I lost but a single cow, which got wet in a shower during her convalescence.

The causes of the malady are insufficient ventilation of the cow stalls, high feeding and taking cold.

I immediately had my sheds well ventilated and whitewashed, reduced the feed, and the disease disappeared.

L.

*For the New England Farmer.*

#### SICK CATTLE AT IPSWICH.

MR. EDITOR:—The reported disease among the cattle at Ipswich, and which the *Salem Register* has said was unfounded, has led me to make some inquiries, and I have received from Mr. Lowe the following statement, signed by himself and two of his neighbors. Some points of importance were omitted in his statement which I will give, viz: the first cow, (as near as he can recollect,) was taken January 10th, 1860, was sick six days; the ox was taken about a week after the cow died, and from the time the ox died to the time the second cow was taken was ten days, and from the time the second cow died to the time the third cow was taken, about four weeks; they have all lived about six days after being taken.

*Topsfield, April 4, 1860.* N. W. BROWN.

#### MR. LOWE'S STATEMENT.

About the middle of January, 1860, Mr. Thomas Lowe, of Ipswich, had a cow taken sick with symptoms as follows: she moved about as though she was trying to bring her weight on to her hind legs, refused to eat or drink, would put her nose on her side as though there was pain in her lungs, breathed heavily, run some at the nose, and appeared to have some cold, sweat very much at times, and then would be hot and dry. She lingered about six days and died. An ox was taken in the same herd with the same symptoms, and died; then the second cow was taken and died; then the third cow was taken the same way and died. No two were sick at the same time, and none appeared to be swollen as from poison. It is believed and feared, by some of the farmers in Ipswich, that this disease may be the same as that prevailing at North Brookfield, and they would like, if another case appears, to have it investigated by the same men that have visited those cases in Brookfield, and if it appears to be the same disease, to have

the same protection by the State, if there is any, as is afforded the farmers in the Western part of the State. Some of the farmers will sign their names below as witnesses of the above statement.

(Signed.)

THOMAS LOWE.

FRANCIS BROWN.

*Ipswich, April 4, 1860.*

JOSEPH KINSMAN.

REMARKS.—Make your application to the Secretary of the State Board of Agriculture, at Boston.

*For the New England Farmer.*

#### DISEASE AMONG HENS—ARTIFICIAL FERTILIZERS.

I have lost four hens out of ten since last October by some disease of which I am ignorant, and consequently could apply no remedy. They were all attacked precisely in the same way, at different times, with loss of the use of their legs, drooping of their wings, falling over backward when attempting to walk; some of them lived several weeks in this state, others died within less than forty-eight hours after being taken. My hens are of mixed breeds, generally hardy and good layers, and are well fed on corn, oats, barley, boiled potatoes, and occasionally on animal food, and supplied with fresh water, and were protected from bad weather by access to a comfortable barn cellar, with a dry roosting-place attached to the yard, where they are shut up a part of the year. I shall feel under much obligation to any one who may be able, through the columns of the monthly *Farmer*, to give me information of the name of the disease, its cause and remedy, if any is known to them.

I am desirous of trying on a limited scale "Mapes' Nitrogenized Superphosphate of Lime," and the "Jarvis Island Guano," on corn land. If any of your correspondents have tested either or both of the articles, and will give their experience of the quantity required for an acre, the manner of applying it, and whether it would be safe to rely on either alone to insure a good crop of corn on grass land, broken up last fall, soil a clay loam, naturally strong and favorable for good crops, but so much exhausted by long cropping for hay as not to produce more than one-half to three-fourths of a ton to the acre, such information will be very important, and confer a favor on many other farmers as well as myself.

*Still River, March 26, 1860.*

L. B. H.

REMARKS.—We have used the Jarvis Island guano with the most satisfactory results, by placing about a wine-glass full in each hill, and dropping the corn directly upon it. We have never used the superphosphate on corn.

CURE FOR RINGBONE.—I succeeded in removing the lameness of a ringbone, by making a bag of strong linen cloth, about two inches broad, and eight inches long, which I filled with copperas, tied on the foot just above the ringbone, and wet twice a day. Keep it on about four weeks. The man that told me of this said he had cured several in this way.—W. H. CHAFFEE, in *Rural New-Yorker*.

*For the New England Farmer.*

# THE WILD LANDS OF LONG ISLAND.

LETTER FROM JUDGE FRENCH.

*Islip, Long Island, April 4, 1860.*

MY DEAR MR. BROWN:—Take the Long Island Railroad at the South Ferry in Brooklyn, just across from the great city of New York, and rattle along about forty miles, and stop at North Islip Station, and devote two or three days to agricultural observation, and you may find as much to interest you as you would be likely to meet were you to travel a thousand miles in many directions. Young men, determined to prosper in the world, do not hesitate to seek good and cheap lands in Kansas and California, severing all the dear ties of home and kindred, and risking health, too, in the enterprise, when oftentimes there are lands within the sound of the church-going bell, as good and as cheap, close by good markets and civilized society, which are overlooked, because they are so near, and require so little enterprise to attain.

Whether any such lands are in this neighborhood, our readers may judge from the facts I shall state.

Long Island is about 120 miles long, and from eight to fourteen miles in width. The two ends were settled nearly two hundred years ago, and for nearly that time, roads have been opened along both shores, and the land through nearly the whole extent has been under good cultivation, yet when the railroad was opened, about 1845, there remained a tract some forty miles long and four to eight miles wide, with no more signs of cultivation or improvement than may be found in the desert of Sahara. Even now, though the railway passes nearly through its centre, the wild deer have not been scared entirely from their haunts, and trout abound in many streams.

What has doomed this land to desolation within less than two hours, by rail, of the great commercial city of New York, with its 700,000 inhabitants, daily offering their gold for the products of the soil?

What's in a name? Through a rose by any other name may smell as sweet, yet were you to advertise it for sale by the name of a skunk-cabbage, probably few noses would go out of their way to test its fragrance. Whoever was author of the names of places in this island probably christened his boys Judas Iscariot and Benedict Arnold, and named his homestead Sodom. King's County and Queen's County are not names inviting to revolutionary ears; Flatbush and Bushville and Hardscrabble are not suggestive of grand old forests or vines and fig trees, or even of "green pastures by still waters; there is not much of harmony or poetry in Quogue and Patchogue and

Yaphank. Jerusalem and Bethpage have not much of the Young America progressiveness in their associations, and finally, when you see as a principal place on the map, actually *Babylon*, the matter begins to grow serious. They say Long Island is of more recent formation than the world about it. Some say it came up from below, and a timid man might suspect that he who reigns over the lower regions may have restored his favorite city, which we read of as "fallen," to the earth, in a new place. No, there is not much in a name, but you and I would not advise a young farmer to buy a farm in Hardscrabble, or to look for a wife among the ladies of Babylon.

The railway excavations have a red and sandy look; the slightly undulating, prairie-like surface, is mostly covered with scrub-oaks, and has been recently blackened by fire, so that one's judgment is in no danger of being seduced by appeals to his emotions of beauty. There is, much, however, to interest a careful observer of this strange region, and after a critical examination occupying several days, spade in hand, I feel qualified to present the condition of these lands to the consideration of those who are looking for new homes, advising no one, however, to purchase, without a thorough personal investigation. Although Cobbett, who was a prophet in agriculture, had his American home on the island, and although some of the wealthiest farmers in the country have elegant homes and farms here, yet there is room for some slight improvements in particular localities. For instance, at Farmingdale station, to-day, we saw a cow harnessed with a horse-collar and rope-traces to a plow which was held by one man while another led the animal, plowing a garden. In all Europe, I never saw the beat of that for plowing. Again, on the road from Babylon to Islip, I saw a load of manure on a wagon drawn by four poor oxen, driven by a man sitting on top of the load, with ropes fastened to the noses of the forward yoke, halter-fashion, the driver holding the ends of the ropes in his hand like reins. On the same road we met a gentleman, or some other kind of man, driving a poor thin ox in a single wagon, probably on a pleasure excursion. A young friend with us kept a sharp look-out for a lady of whom he had read, who used to live in Babylon, and dressed in scarlet clothes, but she was not visible.

Babylon is a good farming region, with tasteful parks and fertile fields. From there to Islip, on a fine old road, are beautiful residences and grounds, occupied in summer by New York millionaires. Several places were also pointed out adorned with grape-houses, fish-ponds and elegant mansions, which were valued at more than \$60,000 each.

The lands, which I particularly examined, and have spoken of as wild, lie four or five miles from



this highway directly on the railroad, but there is evidently a great uniformity, and so all writers agree, in the structure and quality of the whole interior of the island. At Hempstead, only ten miles from the city, is, however, a tract known as the "Hempstead Plains," which presents a different appearance from the rest. It is a prairie, slightly undulating, of smooth, grassy surface, entirely free from tree or bush, 17,000 acres of which are owned by the inhabitants of Hempstead in common, and used for pasture. Leaving now this superficial sketch, I will give a more particular description of the soil, climate and capabilities of the wild lands near Islip, which have been recently advertised for sale in the *Farmer*.

As, however, any tolerably accurate impression of them must occupy more room than can now be spared, I will continue the subject in a future number.

*For the New England Farmer.*

#### COFFEE.

MR. EDITOR:—In a late *Farmer*, I noticed an inquiry by "S. W. M." in relation to raising coffee in the New England States. I do not purpose to reply to this, but in my opinion, though the thing may be practicable, his time and trouble might be expended otherwise to better advantage, considering the temperature of the latitudes in which it is produced.

Reading the above-mentioned article, however, reminded me of a substitute, or rather a partial substitute for coffee, which we have used in our family, and which I will give for the benefit of your readers. It is prepared as follows: Take a quantity of barley, and roast it by a gentle heat, till of a light brown color. Stir in among it a lump of butter on taking from the oven. This is to be ground and mixed with the coffee in equal proportions. Infuse in the usual manner. The beverage is scarcely to be distinguished in flavor from pure coffee.

Coffee may be very much improved by the addition of a small quantity of carrots, prepared as below. They should be thinly sliced, and carefully dried and browned in a moderate oven. A handful added to the coffee before boiling, gives more body to it, and greatly enriches the flavor.

*Bath, March 12, 1860.*

A READER.

MASSACHUSETTS HORTICULTURAL SOCIETY.—From Eben Wight, Corresponding Secretary, we have received specimen sheets of the Report of this Society for 1859. The dissertations or reports of the various committees are valuable documents. We notice some strictures on the management of green-houses that all would do well to read who have, or propose to have, plants "live in glass houses." The weekly shows of the Society are to be continued free to the public, during the ensuing season, thus affording people from the country who visit the city on Saturday an opportunity of seeing what fruits and flowers our soil and climate are capable of producing.

*For the New England Farmer.*

#### FIRES IN THE WOODS.

DEAR SIR:—I have frequently thought that farmers do not have that security and protection against fires in the woods that they ought to have, and as no one has called the attention of those most interested to the subject, I have ventured to solicit your co-operation in waking them up to their duty. It is nothing uncommon to be called to three or four fires on a dry, pleasant day in the spring or early summer months, especially on the Sabbath; time and again have we been called out, in the midst of divine service, to subdue fires set in the woods by careless, reckless, strolling smokers. The increasing habit of spending the Sabbath in strolling over the woods and fields, in the vicinity of our cities and large villages, must be broken up, or our woodlands will become entirely worthless from the frequency of fires to which they are subjected. There is also that silly habit of travelling the streets with a fire under the end of one's nose; even in hot weather, how often we see half-human locomotives trudging along in the highways and byways of our country towns, with an old tobacco pipe in their mouth, sometimes walking beside the skeleton of an old starved horse, and sometimes riding in a gay equipage at a 240 pace; how disgusting to see the human face divine with a dirty stick in the centre, with a little fire on the end, built in a diminutive furnace, and that delicate, matchless machinery, the human lungs, used as bellows, puffing and blowing, for the sake of burning up a little Virginia tobacco, and nauseating the pure air with the villainous smell. If that was all, we could possibly endure it; but when we take into consideration the numberless fires that originate from that same habit, I think it high time that the Legislature pass some stringent law against smoking in the highways and byways of the country.

Why should we be subjected to so much anxiety, trouble and loss? There is almost as much risk in a smoker's passing through woodland in a dry time, as there would be in going through a powder-house. How perfectly natural for a careless smoker to light his pipe, and throw down his match in the pine boughs or leaves, and by the time he is out of sight, the fire will blaze to the tops of the trees, and some honest, hard-working farmer will be subjected to the loss of hundreds of dollars, beside hindering himself and his neighbors half a day or more, to subdue the fire. Being a working farmer, verging on three-score years and ten, I do not expect to be able to put my thoughts in language pleasing to "ears polite," but deem it a duty I owe to my neighbors and myself to call your attention to it in my rough and uncouth way, you being a legislator and editor of an able agricultural paper.

A CONSTANT READER.

*Chelmsford, Feb. 11, 1860.*

REMARKS.—We believe a large proportion of the fires that occur in town or country, are occasioned directly, or indirectly, by smoking, as half the men in the land, and—with shame we say it—some of the women carry matches about them most of the time. Smoking in the streets is a nuisance, and ought to be abated as such.

*For the New England Farmer.*

### MAKING MAPLE SUGAR.

The season for making maple sugar is at hand, and I see no one has written upon the subject. I propose to tell your readers how it is made in old Cheshire county, but in order to do it, give you a history of a visit to A. & C. Smith's, Pottersville, sugar works, one of the best of manufactories. They have at the foot of a hill, a house 14 by 26, and a wood-house attached. They have two arches, and two sheet-iron pans to each arch, one set one foot higher than the other; this is done so as to draw the sap out of the upper pans with a syphon, so as to change from one pan to another, and to avoid dipping, which is thought to color the sap. The cold sap is kept about four rods from the house, in a reservoir, on a bank so high, as to run by turning a faucet through a window, to either pan as they please. This saves a great deal of labor. About 60 rods up the hill, they have another lot, and a reservoir with a faucet attached, and troughs made of boards, 2½ inches by 3 inches, and some 3½ by 4, to carry it to the lower lot, all painted yellow. It takes two hours to carry a hoghead over the line from one lot to the other. They have another lot with reservoirs, painted yellow, with a faucet to carry the sap in troughs, 27 rods, to the other branch, 20 rods from the lower lot. They draw at any time, except when it freezes or rains. One would suppose that snow would trouble the troughs, but it is not so, being painted, they will clear themselves. The crotches, holding the troughs, are put up in November, and taken up when the sugar season is over and piled together. When the sap arrives at the lower reservoir, it is strained through woolen; they calculate to syrup off once a day, and do not take the pan off, but use snow to quell the fire. The pans are washed before being filled. The syrup is strained through woolen flannel, and at the end of this process, if all is clean, there will be no settlings.

The syrup is done off in tin pans, from 8 to 12 pounds to a batch, on a stove, or an arch, and boiled down till it will dry off in a spoon, and when it has grained, it is turned out into tin cups two inches square, till cooled. Some put in milk and eggs to cleanse it, but if every thing is kept clean, it is worse than nothing, because it is more likely to burn, and many times you have to strain it to get rid of it.

They sell their sugar at the door from ten to fifteen cents a pound; some years they have orders for lots in molasses, and they sell from 800 to 1200 pounds a year of sugar. I find there is no trouble in making and selling sugar, if all is kept neat and clean.

MAPLE.

P. S. You will find the two oldest sheet-iron pans here and still good; they were built in 1838, got up by Aaron Smith and John Wight, and built by Wm. Norwood, of Keene, since spread over New England as one of the best inventions.

LET THE STOMACH HAVE ITS CRAVING.—In the diseases produced by bad food, such as scorbutic dysentery and diarrhea, the patient's stomach often craves for, and digests things, some of which certainly would be laid down in no dietary that ever was invented for the sick, and especially not

for such sick. These are fruit, pickles, jams, gingerbread, fat of ham or of bacon, suet, cheese, butter, milk. These cases I have seen not by ones, nor by tens, but by hundreds. And the patient's stomach was right, and the book was wrong. The articles craved for, in these cases, might have been principally arranged under the two heads of fat and vegetable acids. There is often a marked difference between men and women in this matter of sick feeding. Women's digestion is generally slower.—*Florence Nightingale.*

*For the New England Farmer.*

### TRANSPLANTING CORN.

MR. BROWN:—A gentleman of my acquaintance from New Hampshire, whom I met sometime during the winter, interested me much by relating some experiments he had made in transplanting corn, and I desired him to write some account of them for the *N. E. Farmer*. To-day I received from him the following paper, which I am gratified to forward to you. The subject is of more especial importance to those who live north of us, where the season is shorter. But it will be obvious to those who cultivate sweet corn for the market, and to those who wish to obtain early corn for their own use two or three weeks before the corn in the garden or field is fit for the table, that the paper contains a suggestion of much practical importance. Now is the time; who will try the plan? Yours, &c., JOSEPH REYNOLDS.

MR. EDITOR:—I wish to say a few words to the readers of your paper upon the subject of transplanting corn. In the northern parts of New Hampshire and Vermont, and more especially in the Canadas, the season is too short for the corn crops. The deep snows of winter are slow to melt away, and the winds of spring, blowing from the frozen regions of the north-west, are so cold that the ground cannot be safely planted, until quite late in the season. This makes the corn crop late, and exposes it to the early frosts of autumn, which in those regions usually come in August. For this reason, it often happens that the hard labor of the farmer in plowing, planting, hoeing, &c., is almost lost, and his fond hopes of a full storehouse of golden ears of corn for the support of his family and stock are all blasted. It almost always happens that his crop is injured to some degree.

It will be readily seen, that if corn could be so cultivated that it would ripen a month earlier than usual, it would be of great advantage to the corn-growers of those places. I am of the opinion that this can be effected by transplanting. This opinion is derived from my own experience, and also that of others. I was led to test the possibility of successfully transplanting corn in the summer of 1857, because the ground where I wished to raise sweet corn was naturally so wet, and the season that year was so backward, that I knew it would not ripen if cultivated in the usual way. About a month before the ground would be in a suitable state for planting, I planted the corn in a dry, sunny place, making the hills containing four or five kernels each, a few inches apart, each way. The corn came up and grew slowly, yet with sufficient rapidity, and by the time the ground

where it was to be transplanted became dry, it was four or five inches high, about as high as corn is ever hoed the first time. I then prepared the ground, and with the use of a tin shovel or scoop, such as is used in a flour barrel, took up the hills and transplanted them. The result was that every hill lived, that the corn ripened a month earlier than other corn, and was the best piece in the neighborhood. The success of this experiment led me to consider the advantages which would be derived, if corn should be transplanted, and reflection seemed to show me the following

#### ADVANTAGES.

1. The corn would not suffer from the worms, as it would be too large for them to injure, before it is transplanted.
2. For the same reason, the crows would not injure it.
3. It would save the first hoeing, a very important consideration.
4. The corn would so soon take the strength of the ground, and overshadow it, that there would be but very few weeds.
5. The ground, so recently plowed, (just before transplanting,) would be so mellow, and the roots would strike down so deep, that the corn would be less affected by drought.
6. The corn would ripen before the usual great droughts of August.
7. Hoeing would not interfere with haying.
8. The corn would fill out the last of July, or first of August, before the cold nights come on, which so much prevent corn from filling out well.
9. The corn would be secure against frosts.
10. Corn could be raised upon wet land, which is not so much affected by drought.
11. The corn could be gathered in season to sow winter wheat, if desired.

It is needless to remark that each one of these advantages is great, and that the sum of them all is very great. If the corn crop of New England could have been a month earlier than it was last year, it would have been many hundred thousand dollars greater than it was. If the labor necessary to hoe corn the first time can be saved, then the greatest and most difficult part of the work of raising corn may be dispensed with. It is then a most important question, Can corn be transplanted to advantage? To this the reply immediately suggests itself, that the labor of transplanting would be so great as to render it impracticable. Most would come to such a conclusion at once. But may it not be possible that the amount of this labor is exaggerated by those who have given the subject but little thought? May it not be that some means can be adopted by which it can be accomplished much easier than one at first would suppose? I think so, and will propose my way, in which it seems to me it may be done economically.

#### DIRECTIONS FOR TRANSPLANTING CORN.

Prepare boxes about 4 feet long, 3 feet wide, and 5 inches high. Make one of the sides so that it can be easily removed. Fill these boxes with loam mixed with some manure. Then prepare some strips of board 2½ inches wide, 5 inches long, and as thin as the blade of a hoe. Put these down edwise into the loam, so as to divide the loam into squares, 2½ inches square and 5 inches deep. (As these squares are each to contain a hill of

corn, it will be seen that the thin strips are to prevent the roots of one hill from interfering with those of another.) Place these boxes in a sunny place, well protected from the west wind, and about a month before the usual planting time, plant 4 or 5 kernels of corn in each one of these squares. By planting time, that corn will be 5 or 6 inches high. Having prepared the ground and opened the hills, put these boxes into a cart, drive over the ground, take the hills of corn from the boxes in the hand, put them into the prepared hill, press the earth around them, and the corn is at once planted and hoed the first time. It would be well to use some phosphate of lime or hen manure, so as to cause the corn to start immediately. In a short time the corn will be as large as usual when hoed the second time.

It will be seen that, by this process, the labor of transplanting is not so very great, not near as great as that of the hoeing, which is saved. The boxes and the thin strips which separate the hills, when once made, would last ten or twelve years, and the labor of filling them, planting the corn in them, &c., would come so early in the season, that it would not be of so much consequence. It would not take so many boxes to transplant an acre of land as would at first be supposed. If in every square foot of the boxes, there are twenty-five hills, as there may be, then a rod square of boxes will furnish hills enough to transplant more than an acre and an half of ground, if the rows are four feet apart one way, and three feet the other.

It is very evident that the management of these boxes would require some wisdom and care. The loam should not be very rich, as it is desirable to transplant from a poorer into a richer soil. Sandy or gravelly loam is better, as it is warmer. If the corn manifests a want of sufficient nutriment, then liquid manure should be added sparingly. In very cold nights it should be covered over. The corn will be spindling, because the hills are so near together. But that will be remedied as soon as it is transplanted.

My object in presenting this subject to your readers, is to induce them to consider the subject, and, if they think best, to test it by experiments upon their farms. It was tested last summer by several farmers with perfect success, yet not upon a very large scale. I feel that, if I can do anything to enable farmers to produce the most important crop of this part of the country more surely, more abundantly and more economically, I shall do much good. M.

*For the New England Farmer.*

#### HOW TO RAISE CABBAGE.

In answer to "An Old Subscriber," who inquires how to raise good cabbages, I will tell him how I have managed. I prepare my ground in the spring by plowing in to the depth of fourteen inches, a liberal dressing of green stable manure, after which the ground is spaded over, and receives a surface dressing of salt and ashes. I plant my cabbages in hills about the 10th of May, and when two or three inches high, I pick out the plants to distances four or five inches apart, and when they are five inches high, I transplant them, setting them in rows three feet each way, which gives room to work among them. I hoe them

twice a week through the season, and sometimes when there is danger of the heads bursting, I tip them over sideways, which starts the roots and prevents further damage; by this course of treatment, I find no difficulty in making ninety plants out of a hundred head and grow to a large size. For a winter cabbage, I think Comstock's Premium Flat Dutch decidedly superior to all other varieties. Old rotten manures are not good for cabbages, from their being full of worms and insects which prey upon the roots of the plants, producing the "clump foot," which ruins the cabbage.

L. B. PHILBRICK.

*South Deerfield, N. H., March 20, 1860.*

*For the New England Farmer.*

#### PRUNING APPLE TREES.

MR. EDITOR:—In your issue of March 17, a correspondent expresses some of his ideas "on pruning apple trees," which do not, all of them, chime in with my own.

He thinks it is better not to prune at all after the trees begin to bear fruit, but to let nature have her own way; and asks if nature is ever at fault in the formation and growth of a tree. Now, if nature needs no looking after, why does he prune the tree before it comes to a bearing state? Why not let nature have its course at one time as well as another in the life of a tree? If nature can always be trusted, why does she oftentimes allow the fruit of the apple tree, and many other trees, to set itself so thickly that, if it was allowed to remain and ripen, the branches would be broken down, and the tree ruined, unless it was propped and supported in the most careful manner?

That many persons prune their trees too much, there is no doubt, but a little judicious use of the knife or fine saw at the right time of the year—from June to November—sometimes is needed by trees of all ages; and this fact is in accordance with the experience of the most successful fruit-growers of the land.

Your correspondent also objects to the scraping and washing of trees. Now, to scrape a young, smooth-barked tree, would be a foolish operation, surely, but when the bark of a tree has naturally, (as they will sometimes, let them be cared for ever so well,) become thick and shaggy, and interspersed with patches of moss, affording shelter for numerous insects, it ought to be carefully removed—no matter who says to the contrary.

Washing trees, also, prevents the accumulation of moss, &c., and helps to keep off destructive insects. Unless trees are washed, especially young trees, in June, July and August, with some offensive substance, the greatest "bore" of the farmer, the apple tree borer, is almost sure to commence its destructive work; and those trees which have received the most care are most liable to be attacked.

If "M." can keep the borers away from his trees without applying some sort of a wash, will he have the kindness to inform the public how he has done it?

The wash which I have used with good success is the following: Make nearly a painful of soap-suds—not too strong—add a little pulverized brimstone, hen manure, and enough clay to make it adhesive. This wash should be applied three

or four times during the summer months, or as often as it comes off the tree. S. L. WHITE.  
*Groton, March 29, 1860.*

*For the New England Farmer.*

#### FOWL MEADOW AND HUNGARIAN GRASSES.

GENTLEMEN:—In behalf of myself and others of your subscribers, I would inquire, What is the character of fowl meadow grass? It is something new with us. Is it adapted to very low swamp lands? I have a swamp lot that I cleared up last season, and late in the fall I burned it over. Will the seed take without breaking it up? Judging from the article in your paper of the 14th inst., I should think that the writer of that article sowed his seed without breaking up.

Is the seed to be had of Messrs. Nourse, Mason & Co., and how much is required to the acre?

I would like the views of some of your subscribers, "who have had the practical knowledge," as to the profit and value of Hungarian grass?

Jos. M. BISHOP.

*Shoreham, Vt., March, 1860.*

REMARKS.—Cattle are very fond of this grass, so that it is usually worth two-thirds the price of the best English hay. It loves low, moist land, but not "very low swamp lands." It may be introduced by sowing its seed on the sward of meadow or swale land, without breaking up. Hungarian grass is a species of millet, and is an annual plant. It usually gives a large crop, and is excellent for feeding out green to stock in the summer. We have cut one crop only for dry fodder, but found it a good one. The objection to raising it is, the necessity for plowing and seeding every spring.

*For the New England Farmer.*

#### CULTURE OF SHEEP AND PINES.

MR. EDITOR:—I noticed in a recent number of the *Farmer*, that Mr. E. W. Gardner, by figuring and guessing at how much wood an acre of land, set to pines, would produce thirty years hence, claims a larger profit than stocking with sheep would give. He says the land will, in thirty years, produce 20 cords of wood per acre, which is worth \$6 per cord; deducting \$2 per cord for cutting and carting, will leave \$4, which is equal to \$80 for thirty years.

Let us see what we can do for the sheep. In the first place, I shall claim one acre to be called a sheep, as it is not, or ought not to be kept a pasture, if it will not; or, at least, think I am as safe in reckoning it at that, as friend Gardner is in guessing at his twenty cords of wood, thirty years hence. Allow one acre to keep one ewe sheep, which will raise one lamb, (and perhaps two,) which is worth at least \$2.50 in August, to go to market; 4 lbs. of wool at 40 cents, \$1.60, making \$4.10; deducting \$1 for keeping in winter, which is the common price, gives \$3.10 per year, or \$93 for thirty years. He says if any sheep husbandman can make up the other side of the account to match his, he should be pleased to

hear from him. I am a keeper of sheep, and make my figures no higher than my experience proves to be true, which I think will pay a larger profit than setting land to pines, and guessing at the quantity of wood it will produce in thirty years.

*Hatfield, March, 1860.*

J. E. W.

*For the New England Farmer.*

#### WORMS IN APPLES.

MR. EDITOR:—In the *Farmer* of February 25 there is a communication from Mr. S. L. White, headed "Worms in Apples." I have been for a long time expecting, yet fearing, to see something like that. It may well produce alarm, for it threatens the destruction of all the summer and the autumn apples.

In 1835, an apple was given to me that grew about four miles west of my home. In it I found the maggots as described by Mr. White, adding to his description black heads. Five years later they appeared in the sweet apples of my orchard, and rapidly increased, until now, for some years, we cannot have a summer or autumn apple come to perfection, excepting one fine sweet variety that ripens in August—this appearing to get the start of the pests by its early maturity. The bug Mr. White saw, I think, was not the perfected insect. The worm makes a very small brownish-red fly, I am quite sure. There is any amount of them in the fruit rooms, in the late fall and early winter, but I have never found one when the fruit is growing on the trees. How the egg gets into the apple is more than I can guess, for there is not the least appearance on the surface of injury.

The orchards a few miles below us in Plymouth that are exposed to the winds direct from the sea, do not appear to be affected by this nameless depredator.

CALEB BATES.

*Kingston, Mass., 1860.*

#### LADIES' DEPARTMENT.

##### NON-INFLAMMABLE DRESS FABRICS.

The ladies will be glad to learn that a method has been discovered by which any dress fabric may be rendered unflammable. By direction of Queen Victoria, two distinguished English chemists undertook a series of experiments which have resulted in determining that a solution containing seven per cent. of the crystals or sixty-two per cent. of anhydrous salt is perfectly anti-flammable. They remark: "Tungstate of soda ranges among the salts which are manufactured on a large scale, and at a cheap rate. A solution containing twenty per cent. renders the muslin perfectly non-inflammable. It acts, apparently, by firmly enveloping the fibre, and thereby excluding the contact with the air. It is very smooth and of a fatty appearance, like talc, and this property facilitates the ironing process, which all other salts resist." The following formula is given as having proved efficacious, and will simplify the application: "A concentrated neutral solution of tungstate of soda is diluted with water to 28° Twaddie (an alkaliometer, so called,) and then mixed with three per cent. of phosphate of soda. This solution was found to keep and to answer well. It has been introduced into Her Majesty's

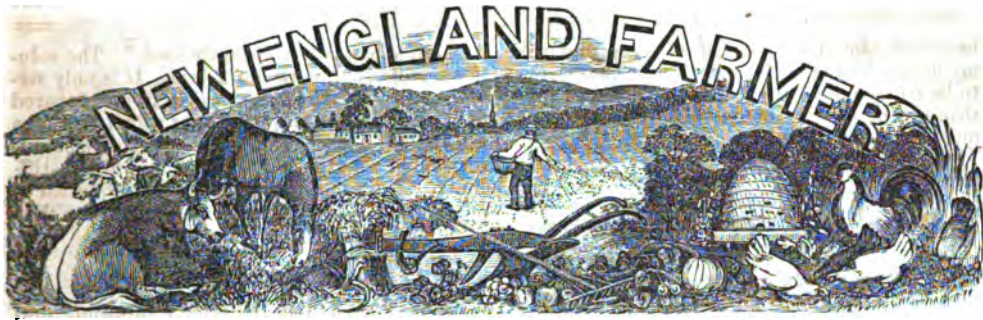
laundry, where it is constantly used." The solution can be applied to any fabric. It is only necessary to dip the cleansed article in the prepared fluid, then drain and dry it, after which it may be ironed; or, if preferred, the solution may be incorporated with the starch to be used in the stiffening. The lightest materials, when submitted to this preparation, may char and shrivel, but they will not blaze.

##### NEEDLE-WORK.

There is something extremely pleasant, and even touching—at least, of very sweet, soft, winning effect—in this peculiarity of needle-work, distinguishing women from men. Our own sex is incapable of any such by-play aside from the main business of life; but women—be they of what earthly rank they may, however gifted with intellect or genius, or endowed with awful beauty—have always some little handiwork ready to fill the tiny gap of every vacant moment. A needle is familiar to the fingers of them all. A queen, no doubt, plies it on occasion; the woman-poet can use it as adroitly as her pen; the woman's eye that has discovered a new star, turns from its glory to send the polished little instrument gleaming along the hem of her kerchief, or to darn a casual fray in her dress. And they have greatly the advantage of us in this respect. The slender thread of silk or cotton keeps them united with the small, familiar, gentle interests of life, the continually operating influences of which do so much for the health of the character, and carry off what would otherwise be a dangerous accumulation of morbid sensibility. A vast deal of human sympathy runs along this electric line, stretching from the throne to the wicker-chair of the humblest seamstress, keeping high and low in a species of communion with their kindred beings. Methinks it is a token of healthy and gentle characteristics, when women of high thoughts and accomplishments love to sew, especially as they are never more at home with their own hearts, than while so occupied.—*Hawthorne's New Romance.*

CLEANLINESS.—The first thing to be attended to after rising, is the bath. The vessel which is dignified, like a certain part of a lady's dress, with a royal order, is one on which folios might be written. It has given a name to two towns—Bath and Baden—renowned for their toilets, and it is all that is left in three continents of Roman glory. It is a club room in Germany and the East, and was an arena in Greece and Rome. It was in a bath that the greatest destroyer of life had his own destroyed, when he had bathed all France in blood. But Clarence, I am convinced, has been much maligned. He has been called a drunkard, and people shudder at his choosing that death in which he could not but die in sin; but for my part, so far as the Malmsey is concerned, I am inclined to think that he only showed himself a gentleman to the last. He was determined to die clean, and he knew, like the Parisian ladies, who sacrifice a dozen of champagne to their morning ablutions, that wine has a peculiarly softening effect upon the skin. Besides champagne, the exquisites of Paris use milk, which is supposed to lend whiteness to the skin.—*Habits of Good Society.*





DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

#### CALENDAR FOR JUNE.

Now is the high tide of the year,  
And whatever of life hath ebb'd away  
Comes flooding back with a ripply cheer,  
Into every bare inlet and creek and bay.

LOWELL.



JUNE—the very name brings a picture before us—a picture to which the most matter-of-fact person is hardly indifferent. The great, gaunt trees, which groaned and shrieked in the blasts of winter, and whose tender leaves have looked chilled and nipped in the east winds of a northern spring, each one has now become a “thing of beauty,” which Mr. Keats says is “a joy forever.”

There is an old house—indeed, there are many such—but we refer to that particular one which now comes back to your memory. It may have been a house of some pretensions when it was new; perhaps it heard the cannons of the Revolution in the days of its youth; but its “glory has long since departed,” and nothing now remains to it but an air of antique respectability. It has, too, an expression of melancholy, as if it missed the master's hand—the master who was carried over the threshold one pleasant autumn day so long ago. As you passed by it, last winter, it looked only a black, mournful pile against the drifted snow. But look again, in this pleasant month of June! The horse chestnut

trees are covered with great green leaves and beautiful blossoms, the elms look up again and show themselves for what they are—the finest of all American forest trees—and the maple bends its graceful head in the summer air. There are cinnamon roses looking over the fence, and a syringa which perfumes the air for rods around. But the old house—what has come over it, this sunny morning? You see its tall chimneys, and catch glimpses of its sombre hues through the trees, but how picturesque, how home-like it seems—how much more attractive than that smart, newly-painted dwelling that stands near, whose green blinds are the only verdant thing about it, unless it be the man who set it there as a target for the hot suns of July and August to shoot their arrows at! Nature knows how to beautify the most desolate spot, and although she sometimes makes a sandy desert without tree or shrub, she never designed it for human habitation.

Last winter, the windows of our old house reminded one of the eye-holes in a skeleton's head; but now, as they are thrown open, through their leafy screen, the people who sit at them seem as if sitting in a bower of interlacing branches and vines.

Lest somebody should mistake the tenor of our remarks, and compare us to that man Aladdin, who preferred old lamps to new ones, we would explain that this is by no means the inference to be drawn; but this, namely, that if the charms of nature can so beautify a musty old dwelling such as we have described, what can they not be expected to do for a brand-new one?

Mr. Hawthorne does not, as an author, believe in old houses—he has intimated as much in his “House of the Seven Gables,” and his “Marble Faun,” and it is ungenerous to demand that a man's private habits shall conform to the sentiments he may think it beneficial to impress upon the public, otherwise somebody might suggest an incongruity between his known *penchant* for the

abodes of the past generation, and the remarks to which we have referred. *Vide* the "Old Manse," where he gathered his "Mosses," and the house whose portrait adorns the "Homes of American Authors."

But now let us look abroad over the face of the world. The seeds that were buried in the "cold, moist earth," in April, are springing up again, the orchard is full of blossoms, and the rye, and wheat, and corn, are green in the distant fields. As you look at them, you are reminded of that verse in Corinthians: "*And that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or of some other grain: but God giveth it a body as it hath pleased him.*" And perhaps you think of the whole of that sublimest chapter, and your faith in the resurrection is a great deal stronger than it would have been if you had not come out to look at the world in the light of this June day. So earth may always speak to us of heaven, if our minds are attuned to hear her lessons. Yet the same sweet air which brings to one the scent of flowers and thoughts of Heaven, comes to another through grated prison windows, or plays about the gibbet where he is to die, bringing only remorseful memories, and "a certain fearful looking for of judgment." So the world is what we make it.

Nor would we assert that there is not a little of the old leaven in the emotions with which even the best of us read the "book of nature."

Young woman, can you conscientiously say that your admiration of this pleasant day is all unmingled with admiration for your new muslin gown, which now, thank fortune, you can wear with low neck and short sleeves, without an admonition from "Mamma?" Young man, we will not for a moment suppose that vanities like these possess your mind, but as you sail over the bosom of the great river, are your musings undisturbed by thoughts of fish-hooks and bait? Or, as you stroll through the woods in a meditative mood, is there not a spirit within which prompts you to pick up a stone, and throw at that little red squirrel that sits so prettily on the fence, with its tail over its back? But we will not be too hard on you, for most likely you did not hit him, and he twinkled into a hole in the wall, from which he looks triumphantly out at you, with his bright, round eyes.

Brother Farmer, would you like to confess how many "calculations" of profit have run through the stream of your meditations, as you surveyed the "marvellous handiwork" displayed in the scene before you?

The charming Hans Andersen, (if you have not his books, pray get them for your children,) describes a scene of loveliness, and then he says:

"There is the poetry of nature. Dost thou believe that this is felt by every one? Listen to what occurred there only last night. First of all, two rich countrymen drove past. 'There are some splendid trees there,' said one: 'There are ten loads of fire-wood in each,' replied the other!"

*For the New England Farmer.*

#### WEATHER AND FARMING IN KANSAS.

"Pray God for rain," is the general cry. With the exception of a slight shower a few nights ago, we have had no rain since the 4th of February. The ground is as dry as ashes and the farmers are trying to grasp hands with patience while they wait for rain to moisten the earth. Yet we witness great preparations for rain. The thunder rolls threateningly; lightning flashes alarmingly and we draw closer within doors, and say, "Now we shall have it," when, presto, change! all the symptoms of the wished-for rain disappear, and the sunshine comes again. Verily, sunshine is a good thing; it lightens the heart and bathes the earth with a beautiful glow, yet we need a storm, now and then, to make us appreciate its kindly smile the more. Some of the farmers have planted a few early potatoes, peas and other seeds that will not injure by laying in the ground while vegetation is so dormant. Many have delayed their plowing, because they think it is useless, and the ground gets so dry when turned to the sunlight.

And yet Nature is wearing a beautiful aspect. Grass is getting quite high on the prairies and teams are already starting across the plains for the great El Dorado. In a few more days the trees will be perfect in their rich livery of green, while the flowers, like a coat of many colors, are adorning the kindly breast of mother Earth. Dear mother Earth! beneath her bosom is beating a pulse of more warmth and kindness than we ever find in the hearts of men. And while I write, a beautiful bird sits upon the fence near by, and repeats, with a metallic sound, "I know it, I know it." And a solitary whippoorwill upon the old oak, near the woods, sadly cries out, "Whip-poor-will," bringing out the "will" prolongingly. Ah, but we have such beautiful birds in Kansas. Nowhere else can there be such a multitudinous variety. "Singing flowers," Beecher calls them, as flowers are "silent birds."

*Sod corn.* That is something of which the eastern farmers know but little, I believe. Of course, every farmer knows that newly-plowed ground never yields a great crop the first year. In Kansas, where we have so much land to spare, the sod is generally turned under during the summer, and allowed to decay till the next spring, and then when plowed over again, yields enormously. If the farmer breaks his land in the spring and wishes to render it useful the first year, he breaks with an eighteen or twenty inch plow, and a man follows after him with a basket of corn and drops the kernels along the furrows; then breaking the next furrow the sod is turned over upon the corn, and thus it is left to come up and grow as it chooses through the summer, no attention being given it. Another way to plant sod corn is to go round the field with an axe, and, at certain dis-



tances, strike the axe in the ground, and after dropping the kernels in the cleft, close it with the heel of the boot. Such corn seldom grows high and yields from thirty to forty bushels per acre. The ears are generally small, and the stalks and ears are generally cut up together, and fed out to the stock during the winter. There will be large quantities of sod corn planted this year. But if the corn is planted on ground plowed the second time, at the distance of two feet apart, and each hill hoed over or plowed between, twice during the summer, we have a crop of from sixty to eighty bushels per acre. The ears are enormously long, large and full, and the stalks often grow to the height of twenty-two feet. No such corn grows in the east, I know. Last year a New Hampshire man brought out some of that small yellow corn of the East, and planted a field of it, and he could not sell it, because it did not yield so much per acre; and the stock did not "take to it," as they do to the large white corn of the West.

Next week we are going "over into Missouri," as we say on the Kansas borders, and I will then give you an account of the farms, and the manner in which they force cultivation out of an earth covered with the blot of slavery; where the very air seems close, because freedom is confined.

SUSIE VOGL.

Summer, K. T., April 23, 1860.

*For the New England Farmer.*

#### HOW A JERSEYMAN TREATS HIS COWS.

In conversation lately with a gentleman residing in New Jersey, near Philadelphia, I learned something of their manner of stabling their milk cows, and the cows kept awhile to be got ready for market. The stable is made very much upon the plan recommended by Mr. Holbrook, I think, with a trench running along behind to receive the droppings; but instead of having a close bottom, has slats, through which the manure drops into the cellar below, and is daily removed and sold to the calico printers. No bedding of any kind is allowed. Behind each cow, at a convenient distance, is fixed in the floor a ring or staple. When milking time comes, a strap with a buckle is passed through the ring, the cow's hind foot on the side of the milker drawn back, as she would naturally stand while milking, the strap passed around her ankle and buckled, the neck straps being so arranged as to keep the cow's head up; it is impossible for the most kicking cow to overset the pail, or strike the milker. The most stubborn cows are subdued by this means, and without violence or harm to the cow, or to the temper of the milker. And in the severest fly time, no loss is occasioned by overset pails.

Cows are each allowed twenty pounds of the best hay per day, two quarts of Indian meal, and a peck of fine feed. The hay is cut, and the meal and feed wet and sprinkled over, or mixed with the hay. They are turned out in the morning, allowed to drink, and yarded for a while, tied up at noon, foddered and turned out again for an hour or two. Separate yards are made for different lots, and those animals which are peaceable together are put together in the lot-yards. When turned out upon the pasture in summer, they run together. But instead of knocking the droppings

to pieces as a dressing for the land, a man is employed with a basket or handcart to go over the field and pick up the droppings, which are also sold to the cloth printers, at a rate sufficient to make it profitable to thus dispose of the manure, and with the proceeds to buy other fertilizers to keep the land in heart.

D.

April 14, 1860.

*For the New England Farmer.*

#### ONION MAGGOT.

Much has been said and written about the onion maggot, and I don't know as there is any cure for him, but I will tell you how I treated mine last year, and with good success for once, and shall try it again this year, and will tell it to you and the farmers free of charge; I don't think I could get "\$60,000" for it, if I should ask it.

I sowed last year in my garden, on good soil, three rows, about thirty feet long each, to onion seeds. I expected the maggots and watched diligently their progress. When they were first up about one or two inches high, I put some strong salt and water on about three feet of one row to see if it would kill the onions, and in case it did not, perhaps it might kill the maggots, if they came; the young onions stood it well, and it did not hurt them.

After the onions had got about as large as a pail-bail wire, there came a spell of warm, wet weather, and my onions began to be affected. I watched them several days, and they grew worse, and were fast dying out, for about one in every eight or ten were wilting and dying, and I found a maggot at the roots of every one that appeared wilting, and sometimes the maggot was nearly as large as the little stock itself, and had eaten the bottom all away, and was making its way up the stem; at the rate of havoc they were making, it appeared there would not be one onion left in the bed at the end of four weeks more. I took a pailful of strong pickle from my pork barrel, and with a watering-pot, put it all on to the three rows as though I were watering them; the onions never faltered or changed. The salt killed all the grass, young clover and weeds, except purslain, which came up later, and the maggots were entirely killed, and I never saw any after, though the flies continued to lay their eggs down the side of the little plant and between it and the dirt, just as flies will blow a piece of fresh meat; but the salt prevented their maturing or hatching, and I raised a good crop of fair sized onions. I think they did not ripen as well as usual, but I am not convinced that the salt prevented them, for I have often seen patches remain as green as mine were at harvest time.

I put on two or three slighter sprinklings of brine after the first, during the summer.

Malden, May 7, 1860.

A. S. HALL.

**NEW BEES.**—At a meeting of the Apian Society of London, the Secretary, Mr. Segitmeler, described the successful introduction into England of the Ligurian bee, a distinct species from the ordinary honey bee. It is regarded as of great value as a honey collector, and has been recently introduced into Germany with great success. Colonies of the new species were stated to be already at work in Devonshire.

*For the New England Farmer.*

### INFLUX OF GOLD.

MR. EDITOR:—I should like to inquire what is to be the probable and permanent effect of the unprecedented and continuous influx of gold into the United States? In other words, in what respects will our agricultural and commercial prosperity be promoted or retarded thereby? Without pretending to any uncommon sagacity upon this subject, I would make a few brief remarks for the consideration of others.

We know already what were the effects upon Spain, after the discovery and conquest of Mexico and Peru; that the influx of gold tended greatly to national degeneracy, by introducing luxury and extravagance, and by paralyzing the industrious and virtuous habits of the nation. The chief cause of this national decline in wealth and prosperity was the relaxation in the industrial habits and pursuits of the people. But, for reasons which are sufficiently obvious, we anticipate a different result in our case. The only evil we experience at present from the influx of gold, is the advance in the price of labor and of all the necessities of life. If the farmer has to pay a higher price for labor, so, in return, he receives a higher price for all the articles which labor produces, so that the various departments of industry were never in a more healthy or satisfactory condition. In all departments of business, work is abundant, and laborers are constantly employed at good wages. And, notwithstanding the high price of provisions, and of all the necessities and conveniences of life, yet all laborers receive a full equivalent by the higher price which they are paid for their services.

Such is the condition of things in these United States. The influx of gold has already raised the price of everything; and it will ultimately make these United States the most prosperous and wealthy nation on the face of the globe. In proportion as gold abounds, so is the price of every thing enhanced. And we have no reason to anticipate a different result. It is true, upon the first announcement of the auriferous discoveries in California, so great was the rush of adventurers to that locality, that, had our population been stationary or self-dependent for its increase, the consequence would have been most injurious to the agricultural industry of the country. But the broad stream of emigration from foreign countries constantly pouring in upon us, more than makes up the loss by our south-western emigration. Besides, there can be no doubt of the beneficial influence of the gold discoveries upon the commerce of the United States. The accession of ten or twelve millions annually to our circulating medium, is of vast importance to all our public interests.

Taking, now, a more enlarged view of these discoveries, a political effect is likely to arise out of them, far more momentous, extensive and permanent in its consequences and future bearing on the destinies of the New World. It does not require the foresight of a prophet to predict, that, at no distant period, the Anglo-Saxon race is to have control and reign supreme throughout the North American continent. It is, in fact, but a question of time and expediency; the result, however, seems to be certain. And this will be ow-

ing, in a great measure, to the discovery and influx of gold, which has thrown into the hands of the Anglo-Saxon race nearly the whole supply of the precious metals. And believing, as we firmly do, that these United States are destined to play an important part in reforming the institutions of civil government, and in civilizing and evangelizing the world, we cannot but consider this fact as most strikingly significant and sure. Whatever may be the designs of an overruling Providence in this arrangement, we trust that these United States, which are now, in some respects, like the children of Israel in the wilderness, travelling to the land of promise, and passing through some of the most fiery trials in order to prepare them for their future duties, will be enabled to acquire themselves manfully and discharge all their duties faithfully, especially those bearing upon the future liberties and happiness of mankind.

JOHN GOLDSBURY.

*For the New England Farmer.*

### THE TRUE TEACHER.

It is the duty of the teacher not only to educate, to draw out what is in the mind of the pupil, to bring into exercise his faculties, to develop, uncover, unfold his powers, which lie folded up like the wings of a bird for future use, but he must also teach, instruct, impart of his own substance, communicate from his own store, according to the power which he has, the light within him. The true teacher has his own mind and soul so illuminated, so full of light, that it shines into every mind and soul that comes within its sphere of radiation, and lightens it up so that its owner, and all others looking on, can see what is in it. Perhaps teachers differ in no respect more than in this power of radiation. Some teachers who have a good deal of illumination, always thrust a screen, consisting of a net work of technical words between themselves and their pupils, and only the few straggling rays that pass through the chinks and meshes of this screen ever reach the minds of the pupils. Technical terms are only the names of ideas or things. They have their use in helping us to arrange and classify things or thoughts, but in themselves are of no value.

If we have ideas, there will be no difficulty in finding names for them, or terms by which to express them. Some teachers require of their pupils the outlay of more force in the acquisition of names, than would be needed to gain a tolerable knowledge of things. A thing may be the better for having a name, but a name without a thing is of no worth. In this way of teaching, there is a great waste of time and force. And besides this waste, there is this other disadvantage; that as the child can not fully understand the name until he has first obtained an idea of the thing intended by it, he will never be quite sure that he understands what is meant by the name, and when it is spoken, he will have no confidence in his knowledge of the thing meant. The teacher who can teach *one* thing, is worth more than that other teacher, who can teach the names of twenty things. Some teachers, not very intensely illuminated within, have yet souls so transparent, that other souls have the full benefit of the light they have. They are not enveloped in mists and fogs.

The windows of their minds are not darkened by blinds and screens, but the light passes through their bright and pure, and is not turned from its direct course by any imperfect medium, and when we look upon the mental tablets upon which it falls, we find a perfect image reflected. This is always delightful. We admire a picture in proportion as it is "true to nature." So when we find the image, the idea, the thought that lies in the mind of the teacher, accurately reflected from the mind of the child, we are pleased—we feel that the teacher is an artist, that he can do real work. Such a teacher, if he can make but one picture, is better than he who attempts many, but makes none perfect.

J. REYNOLDS.

Concord, Mass., 1860.

*For the New England Farmer.*

### THE WILD LANDS OF LONG ISLAND.

SECOND LETTER FROM JUDGE FRENCH.

In a former letter, I gave a general idea of the immense tract of lands lying on Long Island, within two hours of the city of New York, by the Long Island railroad, which divides them nearly in the centre. Thousands of acres of them are for sale, at prices from twenty to fifty dollars an acre. The soil would seem, in many places, to a casual observer, to be far more sandy than in fact it is, there being in it more or less of white water-worn pebbles, which, washed by the rain, show white on the surface. A slight examination will show, however, that the soil is a sandy loam, with alluvium enough almost to entitle it to be called a clay loam. Taking up soil from six inches below the surface, I found that by working it a little in the hand, it had almost the consistency of soft putty, and rolling it into little balls, and drying it, it became quite hard, so that the balls might be rolled across the floor without crumbling.

Again, in pastures and fields, it is a common practice, where there are no streams, to provide watering places for cattle, by scooping out hollows three or four feet deep, and there the rain-water will stand through the summer, by merely treading and thus puddling the bottom, without the addition of clay or any other substance, on land perfectly drained by nature, and where water will not be found by digging twenty feet. This is a common method of supplying stock with water in some parts of England, but there the bottoms of these artificial ponds are usually puddled with clay. These lands have been often described as barren sand, and I am therefore particular in stating my reasons for a different opinion.

There are no stones for miles too large to throw at a dog, and the land is easily plowed with two horses after it is once broken up. My way to clear it, would be to dig up by hand the few trees or stumps too large for the plow, then mow the bushes and burn them, and then plow with a

strong team. I saw a team of five horses breaking up a new field of forty or fifty acres, for the first time. The plowman said they could plow nearly two acres a day, that he had tried oxen, and they could not plow one acre a day. He intended to sow winter rye and grass seed, and said that he had got 28 bushels of rye to the acre the year before, and 30 bushels of winter wheat; and 300 bushels of potatoes to the acre, over 10 acres, getting a crop of 3000 bushels. This is on Mr. Wilson's farm at Deer Park, which he purchased for \$5 an acre about six years ago. My informant is a Scotchman, a very intelligent man, who is, to my certain knowledge, a first rate plowman, and who gives the farm on which he labors, the appearance of an old country farm, such as few American farms present. I may add, that persons who know the farm, have full faith in these statements about the crops. The soil seems precisely the same as that of the Island generally. It is on the railroad, 7 miles nearer the city than North Islip station. All these lands are nearly as level as a prairie, and there is no waste land, so that large square fields may be laid out, and fully cultivated, whenever it is convenient. A farmer at North Islip, whose farm I visited, said that his winter wheat averaged 18 bushels to the acre, and his spring wheat 22 bushels, and his potatoes from 125 to 150 bushels. For potatoes, he plows in barn manure, and manures in the drill with 300 pounds of Peruvian guano to the acre. He said that the guano thus applied plainly showed the rows, after a crop of wheat and two crops of hay, four years after the application.

Everywhere over the Island, so far as I went—and we drove 40 miles in an open carriage in one day, on purpose to observe the agriculture of the region—the wheat and clover appeared finely, and wherever a field had lain in grass two or three years, there was a thick heavy sod, with every indications of a good crop of timothy. Not a mile from North Islip station, we observed a peach orchard of several acres, as handsome and thrifty trees as I ever saw, some three or four years old. The buds then (April 3) were uninjured, and several trees which I examined closely, were full of blossom buds. Strawberries and blackberries flourish finely wherever planted. I observed a few young apples and pears, and some grapes, all of which looked well.

The climate must be more mild than Boston, the winters being tempered by the sea, and the extreme heat of summer in inland places cannot be experienced on the island. Like Ireland, which is the best country for pasturage in the world. Long Island must be much protected from summer drought by the heavy dews, which the sea-breezes deposit in the sultry summer nights. One singular fact deserves consideration by the scien-

tific. The railway runs about four miles from the south shore. In a passage of 40 miles from Brooklyn to North Islip, we scarcely cross a stream large enough to require a culvert, yet all the way along by the common highway, which keeps near the south shore, are beautiful ponds of crystal water, abounding in trout, and supplied by streams large enough in many cases to carry mills, and having their rise within the four mile breadth. The summit of the railroad is about 150 feet above tide-water, and there are no hills worthy the name in all this part of the island. The streams are fed by springs, which have a very uniform flow of water. A friend who accompanies me, insists that it is impossible that all this water can come from the rain, and that it must come up from the sea in some way by capillary attraction. In support of his theory, he says that on Fire Island, which is close by Long Island, the cattle find fresh water by digging holes in the sand through which the sea-water is filtered and becomes fresh. I have not seen any rain-tables kept on the island, but am inclined to think the rain-fall will be found to be very large, and the evaporation heretofore has been small, the land being covered with a low growth of pines and oaks, so that the filtration would be comparatively large.

There is very little opportunity on Long Island for the exercise of my favorite agricultural science of drainage, as nature has got the start of us, and thorough drained nearly the whole island. The wells are from 20 to 40 feet deep, and the water is always found before reaching rock. Indeed, the inhabitants say there is no rock under the island. In all my travels, except near Brooklyn, I have seen no ledge of any kind, no such thing as a stone fence, nor any stone of a hundred pounds weight, except a few on the north side, in Smithtown. Bricks are used for wells, and brick clay is found in some localities.

Long Island ought to be the *kitchen garden* of New York. The climate is mild, the land is well drained and early, is very easily cultivated, and must be productive.

From some chemical tests which I have had applied to the soil, it seems to abound in potash, to have aluminum enough, but to be deficient in lime and phosphates. Bone, or superphosphate of lime would be the specific manure, if this impression prove correct.

These lands are surely worthy of careful examination by those seeking for market-garden farms. Any farmer who will visit them in the heat of summer, while the crops are on, may determine readily the only points which can admit of doubt, namely, whether the soil will endure a drought, and whether the statements as to the crops of wheat, rye and grass, which I have given, are true. Upon these points, I give the authority of

others. I feel confident that the Wilson farm, at Deer Park, is a fair test of the North Islip lands, and I could find no person who would say that the lands in that region were peculiarly subject to drought. Let any man who feels interested, examine for himself, and he will be sure, at least, at Stillenwerfs Hotel at Islip, to find a first rate house, with sea-fowl and trout and oysters, and all other creature comforts that a reasonable man can ask, and he will find enough of interest in this wilderness by a great city, to compensate for the journey.

*For the New England Farmer.*

#### DAIRYING—FENCES.

MR. EDITOR:—I see by an article in the *Farmer* of February 18, that your "New Bedford" correspondent says "Mr. Pinkham can calculate, and Mr. Bailey figure, yet people will not, be convinced that farming is a losing business." Mr. "G. W. H." makes a mistake of three dollars, in his way of running up my figures. I think it is evident to every observing man, that there are some things connected with farming, that do not pay. It is well known that what pays well in some parts of the country, does not pay at all in another part, and it may be so in regard to raising neat stock. It may be that, in Massachusetts, where it does not cost much to transport stock to market, it is more profitable to raise stock than it is here in Vermont. As an offset to the unprofitableness of raising stock, I will give your readers the benefit of my observation, in one single case, and I might give many more. A few years ago, a man in this vicinity bought a farm of 200 acres, for some \$2,200. He paid about \$800 more for his team, stock, hogs, grain, provisions, farming tools, &c. In fact, he had everything to buy, for he had nothing to commence with, except \$1000 in cash, which he had earned by working out for farmers, for some six or eight years previous. He was now \$2000 in debt; a pretty heavy load for a young farmer, and he felt it to be so; and went to work with the determination to remove it. The first two years he paid off one half of this debt, but since then, he has not probably cleared over \$300 a year on account of hard times. Perhaps some of your readers would like to know how we make money so fast up here in rocky, hilly Vermont. Well, I will tell you how the gentleman referred to did it, and what has been done, can be done again. He made butter-making his whole business, keeping about twelve cows, but no more other stock than was necessary. His cows and hogs are his chief source of income, as he usually feeds out all his grain. I do not claim that there is no other way to make money on a farm; but I know that "round these diggins," there are none who make money so fast as the dairymen. And I find it generally true, what an old Scotchman once said to us: "If ye ha kica, ye ha every thin to live weel."

I am happy to see that a new topic has been introduced in the *Farmer*, i. e., fences, and I hope your farming correspondents will give the subject justice. Our experience is, that a good half wall is the best fence. It will certainly stop all kinds

of stock better than any other, and it is not very costly to build, where there are stones enough to build it. I think the wall should be about two feet on the ground, and two and a half feet high. The posts should be set one foot in the ground, and about eight feet apart; the boards being seventeen feet long, and about eight inches wide. Always spike the board on to the round side of the post, otherwise the wind, in swaying the boards to and fro, will draw out the spike. Where cedar, chestnut or oak is not plenty, brown ash makes a very good fence-post.

We have had beautiful weather since last December. Sap has run well the past week, which is early for this section of country. The prospect is fair for a good sugar year. There is but little snow in the fields, and the grass has started in some places. Wild geese were flying to the north on the 16th. Spring birds were seen on the 14th.

Newbury, Vt., March, 1860. T. P. BAILEY.

*For the New England Farmer.*

#### CLOVER AS A FERTILIZER.

MR. EDITOR:—There seems to be a diversity of opinion in regard to clover improving the soil by plowing under. I noticed in the *Farmer* of the 24th ult. a statement by "W. E. D." claiming as a result of his experiment where he plowed in grass, getting a much poorer crop than when there was no grass. He does not say whether it was herdsgrass, redtop or something else. If either of these, I do not see as he has tested the value of clover, of which he first speaks. Now you are well aware that clover is, according to the laws of vegetation, a great extractor from the atmosphere, and is abundantly supplied with leaves which are spread to the wind, and take in carbon and nitrogen; its roots are thrust into the subsoil and take up the salts which other plants do not reach; here we have mineral elements combined; when the clover is turned under, and we plant with corn, it has an abundance of nutriment necessary for its growth. Oliver Marcy, in his address upon agriculture, says, wherever you can get a crop of clover you may get a crop of corn. If you have nothing but a sand-bank, put on something to make your seed catch and stimulate the plant, and everything that is in the soil, air and rain will be brought into the crop. Turn it in, and you have gained much; but cart off the green crops and you have lost the essential materials which the plants extracted from the atmosphere. Even that powerful stimulant, guano, cannot produce a crop after a few repetitions. We hear of the old, worn-out tobacco lands of Virginia being completely renovated by green crops. I hope to hear more upon this subject, as I think it will prove beneficial to many. I commenced one year ago to experiment with clover as a fertilizer, and at some future time I will give you the results of my experiment.

Hatfield, March, 1860.

W. E. J.

**PIE-PLANT WINE.**—The manufacture of wine from the stalks of pie-plant or rhubarb, has become quite an item in some sections of the West. For two years past, we have tasted of it among our many western friends, and have often found

it very pleasant. It is much improved by age, although when quite new it is palatable, and very valuable in the kitchen pastry department. Last summer, we had the pleasure of tasting some that had been made eight years, and found it to resemble a pure Mansinello wine, oily and mild, yet with a pleasant aroma. The maker was William Glasgow, Jr., Esq., of St. Louis, the "Longworth" of wine-making in Missouri.—*Ohio Farmer.*

#### EXTRACTS AND REPLIES.

##### CAUTION TO BEE-KEEPERS.

I find that many patent hive venders are making very free with my name, attaching it to recommendations of hives that I have never heard of, as an inducement to persons to buy their worthless trash. This has been done in many quarters, till my reputation for consistency is in great need of repairs. Take a sample of one of the boldest, emanating from some point in Michigan, where it was supposed, no doubt, that it might escape my notice:

"This is the only patent hive ever used by QUINBY, the greatest bee-raiser in the United States, who, before it was patented, offered \$120 for his individual right, now sold for \$5."

And to make it still more like truth, he gives my name among others for reference. I wish it distinctly understood, that *I never offered a dollar for a patent hive yet. That I never recommended any of them, but those with the movable combs.* And to prevent being accused of interested motives, even here, I would say that I have no interest in any of them beyond an individual right to use. Of these rights I have any number presented me.

I would like to have this rascality exposed; it would save some of the readers of the *Farmer* the trouble of writing, and of my answering numerous letters asking to be further assured of my opinion of this or that hive.

M. QUINBY.

St. Johnsville, N. Y., 1860.

##### A SPECIFIC FOR THE ONION MAGGOT.

As soon as there are any appearances of the maggot, remove the dirt from the bulb of all your onions, and the invaders will take French leave, or some feathered prowler will nab them for a breakfast.

This prevents as well as cures. The onion is tenacious of life, and removing the earth from contact with the bulb does not prevent the growth or perfection of the plant, as the fibrous roots are amply sufficient for its complete development.

NATHAN RYDER.

New Haven, March 31, 1860.

##### CULTIVATION OF WHITE PINES.

About eighteen years since I assisted in setting nearly 3000 white pines upon a lot of sandy land nearly worn-out, and of little value. We procured the trees from a piece of land about to be plowed near a lot of young pines. A large proportion of the trees were from six to twelve inches in height, but thinking we would have some very good ones, we took pains to get a few that were very thrifty, from three to five feet in height; more than one-half the large ones died, while the

small ones nearly all lived, and are now from six to twelve inches in diameter, and the land is worth three times what it was eighteen years ago. We plowed furrows about six feet apart, and placed the trees four feet apart in the furrows. The trees were set about the first of April and with very little expense.

ALDEN DAVIS.

*West Stafford, March, 1860.*

#### RYE AND BUCKWHEAT—FOWLS.

In reply to an inquiry by "M." on "Rye with Buckwheat," I will say that I have made a practice of sowing rye and buckwheat together, for two or three years past. The rye has generally made a good growth, and I should have had a fine crop, if I had let it ripen. I have always plowed the rye in for manure, and it works well for buckwheat. I sow about the tenth of June.

I noticed also a communication from a gentleman in South Danvers, in which he says, "he wishes to get the best breed of fowls." I should advise him to get the Chittagong in preference to any other breed. I have kept them for two years, and find them excellent layers. They are a large and very handsome fowl, the cocks weighing from eleven to thirteen pounds, and the hens seven to ten.

JEREMIAH COBB.

*Westboro', March 20, 1860.*

#### TAXATION.

It seems to me there is more feeling manifested in the communication of "J." of this date than the occasion demands. I have yet to learn that there is any improper imputation made on a man, or class of men, when you say of him, or them, that they are not forward to be assessed beyond their due proportions. A citizen does his whole duty when he pays what is demanded of him, and it is the duty of the authorities to determine the sum to be demanded. I rather think "J." has some matter agitating his bosom, other than the taxes of his townsman; the fact is, personalities are local and limited, sound instructions are general and without limit.

ESSEX.

*April 7, 1860.*

#### GROWING OF WHEAT.

My neighbor, Gen. Sutton, has lately sent me a specimen of his wheat, grown last season on a field of half an acre, which yielded fifteen bushels. It appears to be first rate, but so rare is it to meet wheat grown on our own lands, that I do not feel qualified to speak with confidence of its quality. I remember to have seen this patch of wheat, as I passed over the General's ground. It looked vigorous and handsome—the soil is naturally strong, such as is found on our hill-sides, when subdued and fertilized; and the General on all his grounds spares no pains to have this done to perfection. But the lesson to be learned from this is, if one man can grow wheat, so can another; and as my friend Bartlett, of Warner, N. H., says, any man can grow all the wheat he needs for his family, if he will but try.

J. W. P.

*April 2, 1860.*

To "A. B." Barre, Vt.—In the *Farmer* of December 24, (vol. 12, p. 69,) in your reply to the inquiry, "Is Farming Profitable?" you have stated that from a farm costing \$4000, and without

capital, stock or tools to carry it on, you have paid for all of them, beside the improvements of buildings, fences, &c., from the farm, the whole, with the interest, amounting to the snug little sum of \$10,000 in cost to you.

Now the *modus operandi* of this success cannot but be interesting and useful to every New England farmer, and to all those who anticipate the day when they can call some small home their own.

Please give us, then, a description of what your farm was, (and is,) its size, its soil, its products, &c.; what kind of stock you put on it at first, and have kept; the profit of each, or the comparative profit of cattle, horses and sheep, for the shambles or for wool, according to your experience; so that others in like circumstances, or in any circumstances, may profit by your experience.

*Elm Tree Farm.*

O. W. T.

#### RECLAIMING PASTURE.

I have a pasture away from home which is growing up to hardback and pod-brake. I wish to know the best way to get rid of them?

*Harrisville, N. H.*

LUKE RICHARDSON.

REMARKS.—Cut the bushes, and then depasture it with sheep.

#### ASPARAGUS.

Ought asparagus the second year from the seed to be cut as fast as it comes up, or would it be best for it to grow, and not cut it until the third year?

HENRY F. GIFFORD.

*Falmouth, Mass., 1860.*

REMARKS.—A little may be cut the second year, but as the root will not become large and vigorous without the aid of the top, it is best not to cut it much.

#### BREMEN GESE AND PEACOCK.

Can any of your numerous readers or correspondents direct me as to the best means of breeding Bremen geese, and instruction as to pools and winter shelter for the same. Also as to the habits of the bird "Pavo Cristatus," or Peacock, and mode of raising.

*March 23, 1860.*

OAK HILL.

#### TO CURE RINGWORM, OR TETTER ON CATTLE.

Take a small quantity of linseed oil, and a brush or rag, and rub the parts so affected. It is a sure cure.

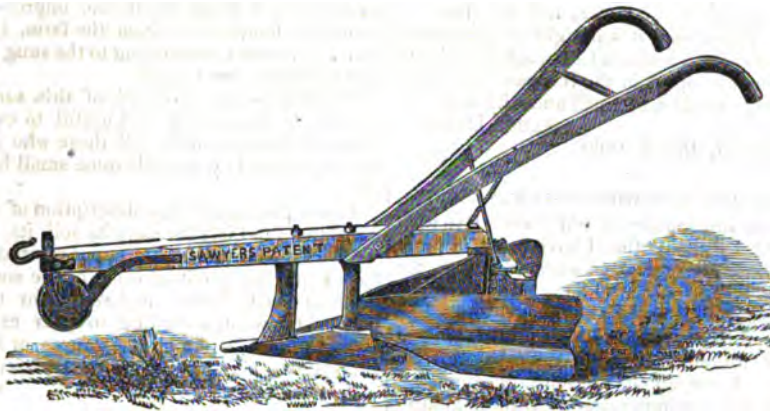
DANIEL CHASE.

*Piermont, N. H., March 24, 1860.*

CURRENTS AS TREES, OR AS BUSHES.—The editor of the *Rural New-Yorker* recommends the tree form. But then adds:

Another good way to grow the currant is in the form of a bush—not the kind of a bush generally seen, but with only three, or at the most, four shoots starting from the ground. After bearing two years, allow one or two strong shoots to start from the bottom, to take the place of one or two of the old ones, which should be cut away. One shoot may be allowed afterward to grow every year, to replace an old one; and thus the plant will be entirely renewed every three or four years.





SAWYER'S IMPROVED CULTIVATOR.

This is an admirable labor-saving implement. For the purpose of hilling we have never seen its equal—and as a scarifier, or weeder, it is very effectual. It is easily changed so as to do little or much work, as is desired, for it is adapted to flat surface culture as well as to hilling. Mr. Wm. R. Putnam, of Danvers, says it is the best tool he ever used for splitting hills where corn grew the previous year, but that its “greatest excellence is in its adaptation to the drill and ridge culture, such as corn planted for fodder, sugar beets and ruta bagas, as it will cover the manuring, and the hand-hoe can be dispensed with.” On ground not stony we should think it might be used favorably for covering potatoes.

*For the New England Farmer.*

#### REVIEW OF THE SEASON.

MR. EDITOR:—For the purpose of keeping the readers of the *Farmer* posted up on the changes and fluctuations of the season, I send the results of my record of the weather for the past six months, giving an account of the principal elements which have governed the season during that time. The amount of rain was 10.42 inches, and of snow 43 inches, which is a much smaller amount than usual. The earth has not been thoroughly saturated with water during the past twelve months.

*October, 1859*, had a mean temperature of 42.87 which is more than 4 colder than the mean, and is the coldest October for the past seven years. Rain fell on 8 days, and its quantity was 1.39 inches, consequently the earth was extremely dry. Snow was first seen on the mountains on the 9th day, but no snow fell at this place. The highest range of the thermometer was 80, and the lowest 20.

*November* had a mean temperature of 37.75, being 2.70 above the mean, and is the warmest November for the past seven years. Rain fell on 10 days, and its amount was 2.29 inches, and the amount of snow 3.75. Winter begun on the 22d,

with 2 inches of snow, yet the snow was nearly gone at the end of the month. The small quantity of rain during the past season caused the springs and streams to be extremely low at the beginning of winter, with but little prospect of any increase.

*December* had a mean temperature of 19.02, being 3.21 colder than the mean, and is the coldest December of the past seven years, with the exception of 1854 and 1856. Rain fell on 11 days and its amount was 2.65 inches, and the amount of snow 22 inches. The sleighing was good for the last ten days, and the cold was rather severe, but the most severe during the last six days, which had a temperature of 6.02. The thermometer on the 28th and 29th ranged from 4 to 26 below zero, having a mean of 11.24 below zero. These were the two coldest days of the season, and, with a single exception, the only days with the mercury below zero all day.

*January, 1860*, had a mean temperature of 23.13, being 4.44 above the mean. No month has been so fluctuating as the month of January, for a series of years past. The lowest mean temperature recorded for January, was 8.69 in 1857, and the highest, was 25.62 in 1855, showing a greater variation than any other month in the year. Rain fell on 11 days, and its amount was 0.84 inches, and the amount of snow 3 inches. The first five days were extremely cold, the mercury varying from 25 above, to 25 below zero. The snow partially disappeared on the 10th, since which time we have had no sleighing and but little snow.

*February* had a mean temperature of 22.03, being 2.36 above the mean. Rain and snow fell on 14 days, and the amount of rain was 1.59 inches, and of snow 6.25 inches. The extremes of temperature were 10 below and 49 above zero.

*March* had a mean temperature of 34.45 being 5.84 above the mean, and is the warmest March of the past 8 years. The extremes of temperature were 10 and 65.50. Rain fell 8 days, and its amount was 1.66 inches, and the amount of snow 8 inches.

The amount of water that has fallen within the last six months is 10.42 inches, or an average of



1.73 inches for each month, while the whole amount for the past year is 27.42 inches, which is much below the usual average.

DAVID BUCKLAND.

Brandon, Vt., April 7, 1860.

#### EXTRACTS AND REPLIES.

##### ADVANTAGES OF UNDERDRAINING.

The advantages of thorough drainage are given by the dozen. It is all very well, and desirable, that the soil should be deepened, should be made more friable, warmer and cooler, better able to resist drought, &c., but we want to know how much greater crops can be obtained from a piece of land after drainage than before? How many more bushels, per acre, of corn, wheat, or whatever any one has experimented with, can be raised, the treatment, manuring, &c., being the same? Unless the crops bring back the money, but few farmers can bear the expense of drainage.

April 12, 1860.

##### QUANTUM.

REMARKS.—Try an acre, good friend, and satisfy yourself. Our opinion is, if that is what you want, that the increased crop occasioned by thorough drainage, will, as a general rule, pay the whole cost of drainage in two or three years. It certainly has proved so with us, and we believe such is the testimony of those who have made fair experiments.

Of course, profit is what we are after. We do not dig and drain merely for fun! We not only want increased crops, but we want to get them at an easier and cheaper rate. So we underdrain, and thereby do the work easier, get larger crops, and avoid many losses, such as those occurring by frosts, droughts, &c. Do, "Mr. Quantum," try an acre, and report results?

##### LOGS FOR CONVEYING WATER.

A reader of the *Farmer* wishes to know which of the various kinds of pipe in use is best to draw water from a well twenty feet deep to a pump about one hundred feet distant on a level. From actual experience, and not from theory, I would say, use pump logs. They are cheap, and work well; they must be air-tight, and to work easy the logs ought to be rimmed out about 1½ inches, so that the pump will feed well. At the place you wish the pump to stand, fit on a common wood pump, or any kind you choose; care must be taken to have the joints air-tight.

I know of pumps that have been in use years, where the pump stands more than a hundred feet from the well, and they work quite as easy, as though the pump was directly over the well. Any man that can make an old-fashioned wood pump, can make one of the above, and soon have a

##### PLENTY OF WATER.

##### WHAT FERTILIZER SHALL I USE?

I have about three acres of moist strong land; upon the sward I wish to put barn-yard manure and turn under, and as I have no manure for the hill, I wish to inquire which of the numerous fertilizers sold in Boston, one hundred miles from

here, will pay the best to buy? Ashes are scarce and high here, worth twenty or twenty-five cents per bushel. The manure I wish to apply is very coarse, which would render it difficult to harrow in.

North Charlestown, N. H., April 9, 1860.

REMARKS.—We have no hesitation on giving as our opinion, that the best fertilizer you can use under such circumstances is the *American guano*, sold at \$40 per ton, by Mr. W. B. Haseltine, Foster's Wharf, Boston. Cannot you supply yourself with home-made guano by preserving all the droppings of the fowls, and mixing them carefully with loam through the year? If so, you will find your corn crop greatly benefited by such an application.

##### NEW MODE OF RAISING STRAWBERRIES.

Will those who have tried for their strawberries forest manure from the pine, saw dust, or tan, try laying slabs, of that kind of wood that will not spring, between the rows. Beds may be made 6 or 8 feet broad, the slabs cut long enough to reach across the beds. I think they will find the fruit freer from dust, the runners more easily cut, (if they wish to take them off,) less weeds, and the ground to remain moister during summer.

New Haven County, Ct.

C. A.

##### WORMS IN HORSES.

I have noticed in your valuable paper inquiries for remedies against worms in horses. I believe I have tried all suggested, but have never yet found anything so effectual as the following:—Put into the horse's provender, three successive mornings, each time about as much fine cut tobacco as would fill one of the common clay pipes. If after applying it as above, I still find appearances of the horses being troubled with them, by giving a dose or two occasionally, I believe I have eradicated them entirely. In my experience, it is very far before ashea.

H. NELSON.

Rockville, April, 1860.

##### A CONTUMACIOUS PEAR TREE.

I have a thrifty pear tree that has never produced any fruit. I want to know what will make it bear. The body is about eight inches in diameter, one foot from the ground. It has a good top twelve or fifteen feet high, grafted eight years ago. The soil is rich, warm, stony and gravelly.

CHARLES D. BARTLETT.

S. Hampton, N. H., April 9, 1860.

REMARKS.—Who can give the desired information?

##### TUMOR ON AN OX.

I have a valuable yoke of oxen, and one of them has a large swelling about the size of a pint bowl on the neck, back of the jaw bone. It is a very hard substance, and grows fast. It does not appear to be attached to the bone, and is very loose in the skin or flesh. Can any of your readers inform me in relation to it?

A SUBSCRIBER.

Tufstonborough, N. H., April 7, 1860.



stantly running through. I did not understand from your correspondent whether his water run through his pipes, or remained until pumped or drawn off as wanted.

Your correspondent, "A. S. Hall's," account of raising potatoes in Brewer, Me., put me in mind of a crop of potatoes raised in Frankfort, Me., the cheapest I ever knew. A fire had run over a lot of low meadow and burnt off all the vegetable matter to a white sand. Near by was a quantity of old spoiled meadow or fresh hay in stacks. A poor man in the neighborhood got from his friends a quantity of small potatoes from the bottoms of the pens, for little or nothing. These he scattered broadcast over the burnt tract, and covered them with the old hay, which cost him nothing but his labor; they had no hoeing, and in the fall he raked off the hay and had the land covered with nice clean potatoes, and nothing to do but to pick them up.

RUFUS MCINTIRE.

Parsonfield, Me., March 31, 1860.

#### JUBILEE! THE YEAR OF REDEMPTION IS AT HAND!

For more than forty years past, the farmers on the banks of the Concord and Sudbury rivers, in Middlesex county, this State, have been endeavoring to regain rights, or in other words, to relieve themselves of an unjust and grievous wrong, inflicted upon them by the inconsiderate and improvident acts of former legislatures. This oppression was in the form of damage to vast tracts of the most fertile and valuable lands in the State, traversed by rail and county roads, and surrounded on every side by the largest and best markets in New England. During this long period of trial and vexatious losses, and amid the annually increasing encroachments of the water upon these once fair lands, nearly every form of the law known to our best legal minds has been resorted to in the courts, but without avail. The sufferers have been turned out upon the merest technicalities of law, scourged with the bitter taunt that they once *had a year of grace*, but did not improve it, or their opponents, squat in the charnel-house and amid the dead bones of a breathless and rotten corporation, would shake a musty old parchment in their faces, and declare that they held a *chartered* right for their ungodly power!

Harrassed and perplexed with these vexatious and expensive delays, and having become satisfied that no hope of redress remained through the courts, the people came to the conclusion once more to seek a remedy, and to seek it from another source. They became satisfied that the law-making power itself, when informed of the facts, would not longer sit calmly by and see a portion of its citizens thus outrageously wronged and oppressed, merely that a few might realize inordinate gains; they knew the public was cognizant of this monstrous wrong, and that its voice was ready to declare it everywhere, and that for *more*

*than a million of dollars' worth of property destroyed by these flowages, not an individual had ever received a shilling as damages!*

In accordance with these views, a plan of operations was devised, and the first point gained, in securing a committee of both branches of the Legislature to view the damaged lands, and to sit in hearing of the facts in the case. This committee made a thorough exploration of the flooded lands, bridges, causeways, bars, and the dam at Billerica, and the hearing that followed occupied some thirty days. Some of the ablest legal talent in the State was employed on both sides, and every step in this memorable hearing was contested with all the acumen and skill which counsel of acknowledged ability usually bring to bear upon an important case. For the petitioners, Judge HOAR, of Concord, acted as counsel until he went upon the Supreme Bench; then Judge MELLEN, DAVID LEE CHILD, Esq., Judge FRENCH, of Boston, and before the case closed, GEORGE M. BROOKS, and the Hon. JOHN S. KEYES, of Concord, and R. F. FULLER, Esq., of Boston. The remonstrants called to their aid in the beginning, Judge ABBOTT, and the Hon. B. F. BUTLER, of Lowell, G. A. SOMERBY, of Waltham, and G. H. PRESTON, Esq., of Boston. The explorations were made with the Commissioners by both parties being in attendance, and the hearing throughout was conducted with that courtesy and urbanity which distinguishes gentlemen in every walk of life. The contest was often sharp, and the rebuttals and rejoinders expressed with more vehemence sometimes than the rules of rhetoric demanded, but no passages occurred to cause unpleasant regrets. During the hearing the testimony of ninety-four witnesses was taken, and speeches and arguments were "as thick as leaves in the vale of Vallambrosa." All these were taken in short hand by a sworn reporter, and the whole report of the Commission, including arguments of counsel, testimony of witnesses, plans, maps, surveys, sand bars, ford-ways, deeds, charters, and the dam at Billerica, printed at the public cost, making in all a book of nearly five hundred pages.

A new joint committee of the Legislature which has recently adjourned was appointed, to which was submitted the report of the first commission, with instructions to print, and then recommend such further action to the Legislature as the facts suggested and the necessities of the case seemed to them to require. In accordance with these instructions, they made a brief, but most comprehensive report, relating the leading facts in the case, and presented a bill authorizing the Governor and Counsel to appoint three persons to act as Commissioners to take down *thirty-three* inches of the dam at any time after the first day of September next. If any person considers his prop-

erty injured by this process, he has his claim by calling upon the County Commissioners, who will proceed to an investigation and assessment, the same as where land is taken for the use of highways.

In consequence of delay in printing the report of the first commission, the joint special committee did not make their report until within three or four days of the close of the session, and it was not until Monday, three days before the Legislature adjourned, that the bill came fairly before the House. The friends of the measure were prepared with maps, and entered at once upon the discussion, and were met by the other side, by such arguments as they could bring to bear, but relying principally upon the unconstitutionality, as they alleged, or want of power in the Legislature to authorize such a proceeding. The discussion in the Senate was spirited and protracted, but the majorities in both branches were decided and unmistakable, and the great measure of the session was triumphant.

Earlier in the session the friends of this measure had succeeded in getting a *Declaratory Act* passed, whereby the State takes back into its own control all the rights which were granted to the old Middlesex Canal Corporation by their Charter of 1793. The canal had not been used for many years, many miles of it being filled up and covered with buildings and cultivated fields; the corporation had not held a meeting for more than ten years, so that upon application to the Legislature, the Attorney-General was instructed to inquire why they should not relinquish their charter? To this inquiry they did not respond, and the Supreme Court issued a decree that in consequence of the nonfeasance and misfeasance of said corporation, it should no longer hold, use, exercise or employ any of the privileges heretofore conferred upon it by the authority of the Commonwealth; so that now, in case suits should be commenced for damages, the mill-owners or dam-holders can no longer screen themselves under that old charter, as by the passage of this *Declaratory Act*, every privilege granted that corporation by the Charter of 1793, and all subsequent acts, is seized back into the hands of the Commonwealth, and held by it, and their charter entirely forfeited and annulled.

We hope that all these proceedings will forever put to rest the long, vexatious and ruinous course of litigation that has now been going on for nearly half a century. But, as in most things of this kind, the farmers have been the losers. One million of dollars will not cover the cost of damages that have already accrued, and it will require several years, under the most favorable circumstances, to restore some of the lowest lands to their former state of firmness and fertility. While the farmers have been isolated, entertaining different

views, and struggling without concert of action, they have been resisted by shrewd and intelligent persons, aided by a compact money power, which has been able to "make the worse appear the better reason," and to defeat the ends of justice for more than fifty years in succession! As this is a matter of general interest to the farmer, we may look at it hereafter in a more *agricultural* point of view.

*For the New England Farmer.*

#### CONCORD FARMERS' CLUB MEETING.

MR. EDITOR:—The Concord Farmers' Club closed its meetings for the year by a social reunion on the evening of the 19th of April, a day always marked with red letters in our calendar. Fifty-two farmers with their ladies assembled at the board of mine host of the Middlesex. After spending an hour in cheerful intercourse in his parlors, the President, Minot Pratt, Esq., called the company to order, and did the honors of the table in his usual modest and genial manner. Rev. G. Reynolds invoked the blessing of Him who giveth the rain and sunshine, and causeth the earth to bud and blossom and bring forth food for man and beast. After partaking, with the farmer's appetite, of the good things provided for their entertainment, the President called upon E. W. Bull, Esq., who gave the company a very pleasant talk. He was followed by Hon. Simon Brown, J. B. Farmer, Wm. Brown, O. Morse, Esq., Dr. Reynolds, Mr. Dakin, from Wisconsin, Rev. G. Reynolds, C. L. Heywood, J. F. Moore, and other members of the Club. Sampson Mason, Esq., recited an appropriate poem abounding in sentiments adapted to the day and the occasion.

The whole affair passed off very pleasantly, and was a very agreeable close to our meetings for the season.

The meetings of the club have been well attended through the winter. Many well written essays have been read before the club. The discussions have been spirited and instructive, and cannot fail to make the members better farmers and better citizens.

The farmers' club, as was said by one of the speakers, is the farmer's college, and I think is the best school he can attend, for here he has lessons in both science and experience.

The meeting at 10, P. M., adjourned to April 19th, 1861, and the remembrance of the pleasant occasion will cheer all who were present, through the toils of the coming season.

Yours,

R.

WORCESTER SOUTH-EAST AGRICULTURAL SOCIETY.—This new society was organized at Milford on the 3d inst., by the choice of the following list of officers, viz:—

Hon. A. C. Mayhew, Milford, *President*; Col. A. Wood, Hopkinton, M. Z. Bullard, Bellingham, Clark Littlefield, Esq., Holliston, P. Wood, Mendon, Samuel Taft, Uxbridge, *Vice Presidents*; Hon. J. G. Metcalf, Meudon, *Secretary*; Henry Chapin, Esq., Milford, *Treasurer*.

*For the New England Farmer.*

### TIGHT BARNs AND SICK CATTLE.

MR. EDITOR:—There has been much written of late, about improvements of farms and farm buildings, and it would not be strange if, in some instances, these improvements should be carried to extremes. Several years ago, I learned by experience that tight barns were not healthy for cattle, and a little reasoning upon the subject will explain why this is so. It is a well known fact, that the droppings of cattle, both solid and liquid, exhale a vast amount of gases of different kinds, and these gases are unfit for respiration; if cattle are deprived of air, and breathe these gases, they die instantly, and if they breathe air impregnated with a large proportion of these gases, they sicken immediately; the disease most likely to be produced is pneumonia, or inflammation of the lungs, as the poison is applied directly to the lungs.

Now what provision is made in modern tight barns to get rid of these gases? Why, there is a ventilator on the top of the barn, but how are these gases to get to the top of the barn, since a large proportion of them are heavier than atmospheric air? The carbonic and sulphurous gases, which are more abundant than all others, are heavier than air, and consequently will not ascend; ammonia is light and would fly away, but the carbonic and sulphurous gases, having a strong affinity for ammonia, seize the fugitive, and by a chemical action, a new compound is formed heavier than air, which, of course, must remain, unless there is some underground passage by which it can escape. If there is no place for its escape, these gases accumulate until the barn becomes filled with them, the hay is impregnated, and the stock has to eat as well as breathe this noxious matter, and the trouble is worse if the stock is high fed. First, because high fed animals have a greater amount of blood, the blood vessels are fuller, and consequently a greater tendency to congestion. Secondly, because the excrements of high fed animals evolve a much greater amount of gases than that of others, and the difficulty of ventilation is increased by the fact that these gases are so nearly of the weight of air. If they were all light, like carburetted hydrogen, they would soon escape at the top; or if they were heavy like water, or even pure carbonic acid gas, they would, in most barns, find cracks sufficiently large to run out near the bottom; but as the facts prove that the gases are nearly of the same weight of air, I am led to the following conclusions:

First, that the walls of barns should never be clapboarded; then there will be a gentle current constantly passing through the barn, and the gases passing out of the cracks on the leeward side; second, that the stable for horses and cattle should extend from one end of the barn to the other, with a door at each end, both of which should generally be open excepting in severe cold weather, and in storms. I have found by experience that a horse kept up in a small tight stable will commence coughing in a very few days. Cattle do not suffer with the cold (unless the cold is extreme) if they are in good health, are well fed, and have a dry, clean stall, and plenty of good air to breathe. The lungs of an ox will manufacture a vast amount of animal heat. I have known a cow to be win-

tered with no other shelter than an open shed, more than two hundred miles farther north than Massachusetts, and she gave milk all winter, and came out well in the spring. Now, if it should prove that the sickness among the cattle is not caused by tight barns, and high feeding, yet I should not believe that it was contagious pneumonia, for that would be a new thing under the sun. I cannot learn that there ever was such a disease among cattle as contagious pneumonia. I intended to say something of the treatment of pneumonia, but I have already spun so long a yarn you will be impatient before you get through reading it, therefore I will close.

STEPHEN ADAMS.

*West Newfield, Me., April 6, 1860.*

REMARKS.—No, indeed,—not impatient. Your subject is one of importance, and we hope you will further discuss it.

### SPRING.

The bursting buds look up  
To greet the sunlight, while it lingers yet  
On the warm hill-side,—and the violet  
Opens its azure cup  
Meekly, and countless wild flowers wake to fling  
Their earliest incense on the gales of spring.

Continual songs arise  
From universal Nature—birds and streams  
Mingle their voices, and the glad earth seems  
A second Paradise!  
Thrice blessed spring!—thou bearest gifts divine!  
Sunshine, and song, and fragrance—all are thine.

Nor unto earth alone—  
Thou hast a blessing for the human heart,  
Balm for its wounds and healing for its smart,  
Telling of Winter's down,  
And bringing hope upon thy rainbow wing,  
Type of Eternal Life—thrice blessed Spring!

### IMPROVEMENT OF VEGETABLES.

There is no vegetable now cultivated, which is not susceptible of almost indefinite improvement. Yet we see very little difference between the crops produced now, and the crops raised by our forefathers. Indian corn, beans, pumpkins, squashes are the same, identically, as we were accustomed to see in our father's fields and gardens forty years ago, except that, in some instances, there is an obvious deterioration as regards both size and quality. This is the plain result of carelessness—a sin to which most cultivators will, we fear, be compelled to plead guilty, and of which they are annually, although some seem not to be aware of it, experiencing the fatal effects. The power of art over nature has already been most forcibly exemplified in the vegetable kingdom, and with reference to some of the very productions which, in this enlightened age, we are permitting to "run out."

Wheat is a factitious grain, exalted to its present condition by the assiduities of culture. Neither rye, rice, barley or oats are at present to be found wild in any part of the world, if we may

credit the assertion of BUFFON; they have been altered by human care and industry from plants to which they now bear no resemblance. The acrid and nauseating *opium graveolens* has been transformed, by the magic of culture, into delicious celery; and the colewort, a plant of diminutive and scanty leaves, not exceeding half an ounce in weight, has been improved into the succulent cabbage, the leaves of which weigh many pounds!

The potato, the introduction of which has added millions to our population, derives its origin from a small, bitter root, indigenous in Chili and Montevideo. Similar results have attended the cultivation of other vegetables, fruits and flowers.

By carefully studying the habits and modes of nutrition and growth covered by the various products of the soil, and by selecting annually the best, most perfectly developed and most productive products of the field and garden, we may, in a very brief period, so modify and change them, as almost to remove them from their respective classes. The fine specimens of Indian corn which we see at our agricultural exhibitions, have all been improved in this way. The Brown and Dutton corn, in their original developement, were not perhaps more productive than other varieties, but by carefully selecting the best ears, and continuing the practice for several consecutive years, the very habitudes and physical characteristics of the vegetable seem to have been changed. Wheat, also, has been greatly ameliorated by the same process, as have oats, and many of the culmiferous vegetables. But this improvement is merely local, whereas it should be general, to produce its legitimate effects upon our agriculture.

#### NUMBER OF HENS TO KEEP, AND TIME TO SELL.

—A correspondent of the *Illinois Prairie Farmer* says: "We have kept as many as one hundred and fifty fowls, and fed them three pecks of shelled corn daily. But our experience has been, that we could get more than half as many eggs from twenty-five fowls as we could from one hundred. We have carried chicks the size of quails to market, and found them ready sale at twenty-five cents each. We might have fed them four months longer, and found them dull sale at a dime apiece."

**GARDEN CRESS.**—This is a favorite salad plant, and, in this character, only the seminal plants are used. It is very hardy and prolific, and may be sowed once a week, from the opening of the ground in spring until the close of the season. Old rich garden soil is the most congenial to it, but any lands of fine texture will, if properly pulverized and enriched with putrescent manure, produce a good crop.

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY APRIL NUMBER OF N. E. FARMER.

*Page 154.—Agricultural Education.*—The extracts here given from Judge FRENCH's forthcoming essay will make not a few of the readers of this journal desire very earnestly that a few more extracts may be furnished. Perhaps the editor may be of the same opinion, and thus be induced to present to his readers another column or more of extracts from what appears to be a carefully considered, judicious, discriminating and instructive essay. All these excellent qualities are certainly quite evident in the last of the three extracts, commencing near foot of first column of page 155, and which might very appropriately have received for their caption, Collegiate and Academical Education insufficient in two respects. As means of general education, neither our colleges nor our academies, as at present constituted and conducted, will ever be of much service in the way of fitting young men for the business of farming, or the more common employments of actual life; first, because they neither profess to do so, nor are adapted to do it; the time and attention of the pupils in both kinds of institutions being devoted almost exclusively to the study of the dead languages and mathematics; and secondly, because their classes do not, "and as at present arranged, never can include more than a small portion of our young men."

The extract headed *Statistics*, and the table of average products per acre, ought to operate as a stimulus to a better style of farming—one whose average products will be less discreditable to us, when brought at some future time into similar comparison with Scotland, &c., as is done in the table constructed by Mr. FRENCH. The statistics furnished in this table of average crops are made the subject of some noteworthy remarks, by Mr. R. S. FAY, on page 156; but we cannot quite agree with him when he contends as reported, that "the reason, the *only* reason, why we do not equal the product of Scotland, is, that we do not understand our business." This may be one reason, but it is certainly not the only one, for thousands of farmers, through the influence of slackness, slovenliness, indolence and other causes, do not do as well as they know how. Then, too, there is a stimulus—the spur of necessity—which drives the farmers in Scotland and England to do their very utmost, both with head and hands, and which operates scarcely at all in this country. From the produce of their farms, the tenant farmers of these countries have not merely to supply the wants of their own families, but they have also to spare enough to raise for their landlords a rent, usually in cash, of from about \$5 to \$15 and even \$25 per acre. The American farmer knows nothing, or but little, of this dire necessity, and therefore does not strain every nerve, as his transatlantic brethren are obliged to do. But though the non-understanding of our business is not the only cause of our comparatively small crops, it is so to an extent which justifies all the efforts made, or to be made, by individual or governmental enterprise, to make a better understanding of the business of farming more common, and to induce American farmers to bestir themselves.

May we venture a suggestion to Judge French,

and submit for his consideration, our persuasion that when his essay next goes through the press, the table of average products per acre would be made more useful and less discreditable to American farmers, if he would add another line, and give the average or maximum of such crops as have been offered for premiums at any County, or State Agricultural Society.

*Page 159.—A Farmer's Barometer.*—The praise bestowed upon Mr. TIMBY's improvement in barometers will doubtless make a good many of the readers of the monthly *Farmer* turn, as we did, to the advertisements to ascertain whether there might there be found two items of information in regard to this new barometer, which so much praise makes it very desirable to know. The two items in regard to this new barometer which many will wish to ascertain, are, in question-form, these: 1, What is the special improvement or invention introduced by Mr. TIMBY? and 2, What is the price of the barometer manufactured by him, and where is it to be had? The readers of the monthly would like such answers to these questions as Mr. TIMBY could most appropriately supply them with by means of an advertisement. They would like also to know whether his barometer is a mercurial one, or an aneroid, or something different from either. If Mr. T. has advertised in the weekly *Farmer*, and neglected doing so in the monthly, because he thought the readers of the latter rather "small potatoes," or not likely to become purchasers of his wares, we can assure him that some quite competent judges are of a contrary opinion. Let him try.

The chief reason why barometers are not more in demand among farmers are these: 1. Their uses and advantages are not clearly understood. 2. The price, if over five dollars, will always be a hindrance to the general introduction of this useful instrument; 3. There is a pretty common impression that it requires more than usual skill or intelligence to keep barometers in order, and to understand aright the indications which they furnish of changes in the weather. A smart peddler might overcome the first and last of these obstacles, and, if able to furnish a good-looking and reliable article at or under five dollars, might do quite a large business among farmers.

*Page 162.—Raising Pork.*—Only once in twenty years have our pigs been anywhere else but in the pork barrel some time before Christmas, but the experience of that winter furnished confirmation of the statement here made, viz., that a bushel of corn in September or October will fatten more than one and a half in December.

*Page 165.—Soaking Seed Wheat.*—Good managers will act on the hint here given, and try it either on a large or a small scale.

*Page 166.—Hints on Sheep Management.*—Good managers will do pretty much as Mr. GREEN does, and especially never allow ewes to breed till three years old.

MORE ANON.

**HONEY BEES.**—Mr. W. H. Robinson, of Kane Co., Ill., writes to the *Prairie Farmer*, that farmers in his section are giving more than usual attention to bee-keeping; that there are near 200 swarms within the compass of two miles, and inquires, "can the country be overstocked?"

#### AGRICULTURE IN A BOY'S SCHOOL.

One of our best Academies, we think, is that of Mr. Alfred Roe, at Cornwall in the Highlands; and Mr. Roe has shown his eagerness to keep pace with improvement, by entering warmly into the new enthusiasm for *educational agriculture*. He has a large garden attached to his Academy, and, in it, he intends that his scholars shall be taught the rudiments of farming. An essay "on the cultivation of the Red Antwerp Raspberry," written by Master Caldwell, one of his pupils, has already appeared in the March number of the *New York Teacher* forwarded to that periodical by H. L. Stuart, Esq., in connection with a Letter to the Farmers' Club of the American Institute, proposing the system. The following passage explains it:—

"Each pupil in the higher classes, both boys and girls, will be required to select some one of the various farm or garden products, including all kinds of domestic live stock and labor-saving implements, as an object of special observation and study, under the direction of the teacher, and the eye of the parents at home. This exercise will extend to the selection of varieties, adaptations to soils and climates, planting, chemical composition, observation and processes of development, and practical applications of the best method of treatment; the whole forming a series of interesting and useful subjects for oral and written discussions during one or more school terms. Each pupil finally summing up results, in an essay to be preserved among the records of the school, a copy of which is to be sent to the parents, and the most meritorious to be forwarded to the Farmers' Club of the American Institute, or to the nearest state or county agricultural society or farmers' club, to be read and preserved in their annual reports. The planting and practical exercises and applications will be conducted chiefly at the homes of the pupils. But little ground will be required for each illustration; general interest and emulation will be excited among scholars and parents, and the most approved methods, varieties and processes will be brought into immediate use and practice throughout the country; thus generally stimulating and adding vastly to our productive agricultural industry, without increasing the cost of instruction in our common schools."

In this admirable graft upon the tree of knowledge, we wish Mr. Roe, and his brother teachers throughout the country, every possible success.

**TO GET EARLY SQUASHES, MELONS OR CUCUMBERS.**—Cut two pieces of strong sods from fine, rich pasture ground, shave the dirt sides even, lay one of the sods on a piece of board, grass down, and stick in the seeds an inch or two apart, then put on the other sod, and keep them in a warm corner near the fire-place, giving them a sprinkle of rain-water once in a while, if they get too dry. The seeds will take root, and when the time comes to put out the plants, cut out a piece of the lower sod with each seed, so as not to break the tender rootlets, and plant it where it is to grow. In this way, you gain two or three weeks' time, and the plants will get the start of bugs and flies. A little extra care will be well compensated by extra early and fine vegetables.—*Farmers' Advocate.*



## EXTRACTS AND REPLIES.

## THE WEEPING WILLOW.

Will the weeping willow flourish upon plain or sandy land? Where can they be obtained, and at what price?

EZRA B. KNAPP.

Haverhill, N. H., 1860.

REMARKS.—This willow will undoubtedly grow on plain lands, but not flourish as it will in its native habitat by the water-courses. Its name, "willow," means "near the water." Linnæus gave it its specific name, *Babylonica Salix*, under the idea that it might be the tree so touchingly referred to in the 137th Psalm: "By the rivers of Babylon, there we sat down; yea, we wept, when we remembered Zion. We hanged our harps upon the willows in the midst thereof." Nurserymen usually have it for sale.

## A COW AND HER CUD.

A cow that I have had the care of in part, the past season, has shown symptoms of disease in a manner that is uncommon in these parts. In December last, while clearing her manger one morning, I found about a peck of cuds that had been thrown up the night previous. Each successive morning, for two or three weeks, there were found some, not as many as at first; have seen nothing of the kind for the last six weeks. She has been hearty and regular to eat and drink from the first, but has gradually grown weaker, so that now, when tied in the stable, she cannot get up alone. By the way, from the first, she changed her manner of getting up, so that it is like that of a horse, forward feet first.

If you, or any of your readers, can point out a cause, or a cure for the disease, you will oblige

A FARMER.

Hanover, N. H., 1860.

## RINGBONE OR TETTER.

I have had some experience with the ringworm, or tetter in cattle, and never have failed of curing in a short time, with grease rubbed on once or twice. Salt grease or pot skimmings is the best that I have tried. This disease is quite apt to go through the whole stock, if not taken in season.

GEORGE HARNEY.

Marlborough, March, 1860.

## SICK HENS—LEGHORN FOWLS.

One of your correspondents wishes to know what will cure his sick hens. I have had them sick in the way he describes, I should think, and gave them a tea-spoonful of castor oil, which has cured them in my case.

I wish some of your Leghorn fowl correspondents would give a description of these fowls, whether they are large or small, and their color, whether they are what are commonly called the

Black Poland. The Poland fowls are mostly black—some white, with top-knots; small, good layers, and not inclined to sit.

Hyde Park, April, 1860. ORSON HADLEY.

## FREEZING AND THAWING.

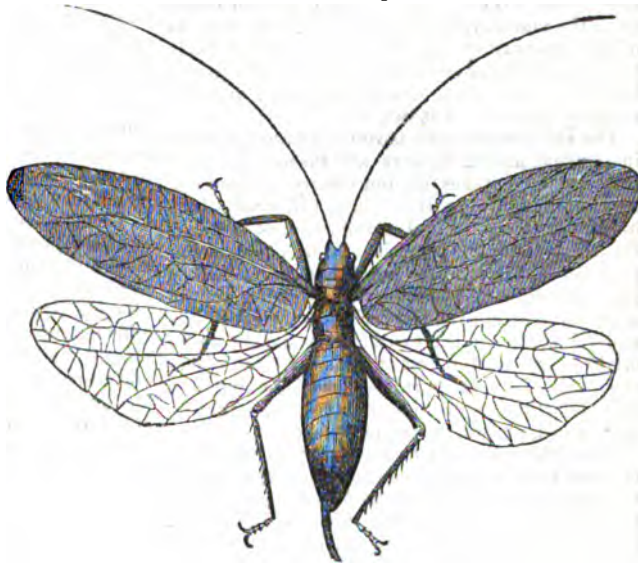
Will some of your correspondents inform me why freezing and thawing are necessary in order that the sap may flow from our maple trees in sugar time? What are the constituent parts of sugar?

READER OF THE FARMER.

Putney, Vt., 1860.

## TWO OF OUR COMMON INSECTS.

THE KATYDID.—"The katydid is one of the most conspicuous grasshoppers of North America. In the cool evenings of Autumn its melancholy song reverberates from every tree in our orchards and forests, and its never-ceasing complaint, that katydid, has not only suggested a thousand pleasant recollections, but has often occasioned many curious and poetical conjectures as to its origin and significance."



We are not aware that this grasshopper is in any way hurtful to our plants, unless, like other grasshoppers, it becomes exceedingly numerous. Jaeger, whom we have quoted above, speaks of the significance of this little insect, and says that "he knows nothing in nature that is insignificant." We think this the true view of the matter. It is certainly essential, or it would not have been created. How do we know but the bee, or swallow, or pigeon, could be spared just as well? "Each animated atom of creation bears the stamp of some great moral or intellectual significance, and appeals to man's universal and unborn conviction that naught was ever made in vain."

A facetious poet has asked this little insect tat-

tlar what occasioned its everlasting song of "Katydid," and pretends to have obtained for an answer certain hints as to sundry interviews between a certain Miss Katydid and her lover. He says:

"But never fear me, gentle one, nor waste a thought or tear,  
Lest I should whisper what I heard in any mortal ear;  
I only sport among the boughs, and like a spirit hid,  
I think on what I saw and heard, and laugh out 'Katydid.'  
I see among the leaves here, when evening zephyrs sigh,  
And those that listen to my voice I love to mystify;  
I never tell them all I know, although I'm often bid;  
I laugh at curiosity, and chirrup 'Katydid.'"

The katydid is nearly one and a half inches long, and its wings, when expanded, are about three inches wide. Its wings are of a pale green, and its wing-covers of a dark green color, which fades away, and becomes brown when the insect is dead and dried.

It is a very singular fact, and shows the general deficiency in entomological knowledge, that numberless though they be, still very few persons can say that they have seen this handsome little insect. It dwells in trees and shrubs, and usually conceals itself during the day under the leaves.



**THE PIGEON TREMEX.**—This is a destructive little insect, more than an inch long, and like the whole family of them, is provided with a borer, which is one inch long, as thick as a bristle, of a black color, and always concealed within the body when not in use.

They feed exclusively on wood, making long passages through it, and thus destroying much valuable timber; and as they grow very slowly, and remain several years in the larvæ state, they often become injurious to whole forests of trees. When fully grown, they are about one inch long, when they make their cocoon; and in a few days after undergo their final transformation into the perfect insect.

**OATS.—QUANTITY OF SEED PER ACRE.**—I see by your paper that you would be pleased to hear from correspondents their experience in regard to the quantity of seed sown per acre in oat culture. Two of my neighbors had each one acre of

land, which they wished to seed down with oats. Their farms join, and the soil was the same, and treated alike, except that one neighbor sowed one bushel per acre, and measured up forty, of as handsome oats as I ever saw, as the result. The other man sowed three and one-half bushels per acre, and measured up but thirty-three bushels. But he had a much larger quantity of straw. If these results were to decide the question, I should think that where the largest quantity of fodder was the most of an object, the heavy seeding would be the best. The man who has practiced seeding with but one bushel per acre, has received nearly the like results for the past two years.—  
**GEO. D. FORISTALL, in Country Gentleman.**

*For the New England Farmer.*

#### DRAINING A MUCK SWAMP.

**MR. EDITOR:**—I have a muck swamp of about two acres, and twenty-five or thirty feet deep. I have drained the water off about three feet deep, and want to drain deeper, and have thought some of putting in a syphon; I think that a 1½ inch pipe will drain it through the summer season. I wish to inquire through the *Farmer*, which will be the cheapest and the best pipe to use for this purpose. Perhaps that you, or some of your correspondents, can give me the desired information. The object in draining this so deep, is, that the muck may rot as it lays in the bed, that when it is dug, we shall have the use of it sooner than we should if it was covered all the time. Perhaps some of our farmers will say that it will not pay to invest money in farming, but I think that most of the farmers in this vicinity are too afraid of improving their farms; they had rather let their money, and take slow notes, and stock in vessels, banks, &c., which I think is poor policy. I believe that farming will pay, when it is managed as it should be. At least, I have more faith in it than our friend, Mr. Pinkham, appears to have.

**A. S. WENTWORTH.**

*Hope, Me., April 7, 1860.*

**REMARKS.**—We should think pine logs would be the most economical.

*For the New England Farmer.*

#### COFFEE RAISING.

In answer to the inquiry of "S. W. M.," in a late number of your paper, concerning the successful cultivation of Java coffee, I would inform him that I procured a few kernels last season, and planted a dozen hills. It grew vigorously, and yielded when harvested a quart or more, of what I supposed to be pure Java coffee. This experiment, as far as it goes, proves that coffee can be raised in our climate, but whether successfully or not, needs further proof. After it is harvested, a prominent difficulty presents itself, which I wish you, or some of your readers, would obviate, and that is, how shall it be prepared for use? It has but little resemblance to our imported article, and must pass through some process to render it palatable. Any information concerning this subject will be gladly received through the medium of your valuable paper.

**E. A. ROWE.**

*Laconia, N. H., April 4, 1860.*

## FRIGHTFUL RAVAGES OF THE CATTLE DISTEMPER.

### ORIGIN AND SPREAD OF THE DISEASE, AND THE MEANS FOR ITS EXTERMINATION.

This disease has been known to be in existence in Massachusetts for several months. It is generally supposed to have been introduced here by some cattle imported from Germany, by Mr. Chenery, of Belmont, a town some five or six miles from Boston. From his herd a calf was sent into the town of North Brookfield, in Worcester county, and from thence the disease extended into some of the neighboring towns. The matter was brought before the Legislature at its late session, but the subject was so new, and a considerable portion of the members so much alarmed whenever the words "treasury" and "dollars" were used, that no definite action was had upon it until the last hours of the session were passing away. In the meantime the disease was unquestionably making its silent progress in several ways, and the golden moment for suppressing it effectually was gone. It is possible, however, that the disease is epidemic, and that it will baffle all human foresight and skill to prevent its ravages. We hope not. But when we consider that it is communicated readily by association, and that almost universal changes are taking place in our neat stock at this season of the year, there is much ground, we must confess, for well-founded belief that it will cover the extent of New England.

Below we give an account of a visit of Gov. BANKS to the infected district, the examinations by the Commissioners, and the depressed state of feeling among the farmers, together with interesting incidental matters as reported for the *Daily Bee*.

"More than \$5,000,000 is invested in neat cattle in the State of Massachusetts. If this destructive disease should once spread over New England, millions of property must be sacrificed.

From the representations made by the Commissioners and others, Gov. Banks, on Saturday, April 21, visited the principal locality of the disease, and in company with the Commissioners and others gathered such information as they were able concerning the disease, the extent to which it has spread, what means will be required to check it, as will enable them to proceed with good judgment.

### PRINCIPAL SEAT AND ORIGIN OF THE DISEASE.

As we have before stated, North Brookfield, on the high land in the western part of Worcester County, is the place where the ravages of the distemper have been most disastrous. It has, however, spread, as it is thought, into several of the adjoining towns, and it is not precisely known to what extent. It is quite certain that there are cases in New Braintree, Ware, South Brookfield, Rutland, East Brookfield, Barre and Oakham. This is a fine agricultural region, noted for its dairies and its excellent butter and cheese. The herds of most of the farmers are large, and many of them carefully selected from blood stock. The disease reached North Brookfield from Mr. Chenery's farm at Belmont. Curtis Stoddard bought a calf from Chenery's herd and took it home. It was soon taken sick, and not knowing of the disease, he took the calf to his father's, Leonard Stoddard, to be treated. He was a very large farmer, trades cattle largely, and had on hand a large herd, to which the contagion was communicated. Once in this large herd, the distemper spread in all directions. Several of Mr. Stoddard's cattle were taken sick about two weeks after the calf was brought there, and in about ten or fifteen days died. This section of the town has become entirely depopulated of its cattle.

### THE EXAMINATION.

The examinations made on Saturday were in this neighborhood—the first on the farm of Mr. Alden Olmstead. As we passed up the road, but few cattle were seen. Arriving at the farm of Mr. Olmstead they found a herd of fourteen, out of which two had already been killed and seven died. Besides these were four spring calves. The cattle were tied up in the barn awaiting examination. They were feeding, and, to the common observer, there was nothing particular indicating disease. Some of them stood with their backs slightly arched, and their heads drooping a little. What was more observable, on a closer examination, was a certain unnatural expression of the eye, which was slightly glazed and dull, as if the animal was suffering from pain. Otherwise the herd looked well, most of them in good order, and some of them, apparently, in perfect condition. They were all condemned.

The examination is made by sounding the lungs. This is done, by rapping with the fingers on the ribs, just back of the withers and near the back bone. If the animal is untouched by the disease, they are resonant; but if the distemper has fastened upon them, they give back a dull sound. Some idea of the extent of these enlargements may be formed by the fact, that the lungs of one cow, which should have weighed four pounds, were so much enlarged that they weighed sixteen pounds, filling the cavity completely, and adhering to the pleura.

One cow was led out by the side of one of the "graves." By her stood a man with a sledge-hammer. A crack on the head brought the animal down, the throat was cut, and the hot blood poured into the pit. The surgeons laid bare the lungs and took them out. They were swollen, discolored, and in portions filled with pus, showing an advanced stage of the disease.

Another cow was taken up, in which the surgeons had not detected the disease after a careful examination, although she had of course been exposed. On taking out the lungs they were found comparatively healthy, but wanting in the natural crepitation, and with a slight discoloration on the edge, showing the incipient stages of the disease. This animal had a strong constitution, which had resisted the distemper thus far. Another had been attacked, but was thought by the owner to have recovered. The left lung was discolored, and adhered to the diaphragm, but the right lung, as is usual in cases of this kind, was badly diseased, having adhered to the sac. A marked case was a greyish cow which had produced two calves, twins, one of which had died of the disease. The cow was found to be slightly diseased, it having been transferred in a measure to the calves. When the calf was led along he breathed with difficulty, and on examination it was found to be a very bad case.

The Commissioners next proceeded to Mr. Leonard Stoddard's, the farm where the disease first was known. Three were killed here. They were all found diseased. This ended the examinations for the day.

The examinations and explanations by the veterinary surgeons were very minute, and the explanations intelligent. Everything throwing light upon the disease in its different stages of development was examined, and specimens of the lungs were reserved in nearly all the cases. Their investigations will throw much light upon the disease, and though they cannot aid in curing what is incurable, they will apprise the public of the dangers to be apprehended from it, and prepare them for some measures for its extinction.

### THE NUMBER KILLED, THEIR COST, ETC.

The method by which the Commissioners proceed is as follows: whenever there is suspicion of disease they make examinations, and if they find disease the cattle are condemned—await slaughter, under their supervision. In cases where they have reason to suspect the cattle have been exposed, while they are not certain of disease, they issue a process by which the stock is put in "arrest"—that is, prevented from mixing with other cattle.

The whole number which have been put under arrest, together with those killed, up to Saturday night, is about eight hundred head.

The value, as by appraisal of those actually killed up to Saturday night, is \$3780.

The following table exhibits the names of the persons whose cattle have been condemned, showing also the original number of their herds, the number which the Commissioners bought for preliminary examination, the number which have died, and the number which have been killed. It is taken from the books of the Commissioners:

	No. Herd.	Bought.	Died.	Killed.
C. P. Huntington.....	23	8	8	11
Alden B. Woods.....	37	1	5	21
A. A. Needham.....	37	2	7	28
A. Olmstead.....	21	2	7	12
L. Stoddard.....	62	1	13	10
	160	9	40	82

### INCIDENTS, RUMORS, ETC.

It is hardly possible to convey an impression of the feeling which exists in North Brookfield and vicinity. The western part of Worcester county is as much affected by such a calamity as any section of the State could be. The beautiful town of North Brookfield has thus far suffered the most, but unless the scourge is arrested other towns will suffer equally. It is the chief subject

of conversation among all classes of people. As one result of the disease, no milk, butter, cheese, veal or beef is taken from the Brookfield stations, unless after the most rigid investigation into its antecedents. It will be a long time before the reputation of the region will be recovered.

One man named Meade is of the opinion that it was communicated to his cattle by means of his clothes. He says he was at Stoddard's, and among his cattle, and after he went home his calves came around him, smelt of his frock, and were soon attacked. It is said, however, that his cattle and some of Stoddard's were at some time together. There was a report that the distemper had appeared in Ware, having been conveyed in some hay sold from a barn in North Brookfield, in which were infected cattle. The Commissioners, determined to take every precaution, will probably prohibit the sale of hay from infected barns. At the close of the examinations on Saturday, the Commissioners requested the people from the adjoining towns to change their clothes before going into their barns.

#### IS THE MEAT POISONOUS?

This is the question in which all consumers of beef, milk and butter are interested. Up to a certain stage of the disease the meat is not injurious, though the Commissioners have prohibited, entirely, its sale. In European countries the sale of the beef of animals suffering with this disease is legalized. There is no virus introduced into the system, and the meat is only injured from the blood not being purified by the operation of perfect lungs.

#### DESCRIPTION AND SYMPTOMS OF THE DISEASE.

The locality of the disease, as its name denotes, (pleuro-pneumonia) is in the lining membrane of the thoracic cavity, and in the thoracic viscera. It is probable that the disease is really a disease of the lungs merely, and that the pleura or contiguous membranes are affected merely by sympathy. If an autopsy be made of an animal suffering from the disease, the cavity of the chest is discovered to contain a quantity of diseased serum, the effusion of the affected pleura; and the lungs are seen to be solidified, filled with lymph, and of the dark color of venous or un-oxygenated blood, instead of being porous and of a pink color. From this solidification and the dark color, physicians have agreed that the lungs do not act naturally in the elimination of carbonic acid and the absorption of oxygen into the blood, and as by degrees the blood gets poorer and poorer, has less and less vitality in it, the animal must die, just as a man must when shut up with a pan of charcoal in a close room.

It is only recently that this disease has been introduced into this country, it having come over, without doubt, with some "improved stock;" but the fearful ravages it has already caused here and in New Jersey leave no room to doubt that it is highly infectious, and the experiments in inoculation made in Europe lead us to suppose it is contagious also.

This disease is supposed to have originated in the Netherlands, was probably introduced into this country by Dutch cattle, but has been known for a century and a half in England, France and Germany, in which latter country the government have adopted the most energetic measures for its extirpation.

Paoli Lathrop, Esq., one of the Commissioners upon the cattle disease, accompanied by Drs. Bates and Thayer, visited Belmont on Tuesday, 24th, to ascertain whether the disease had made any progress in that vicinity. They thoroughly examined the herds of Messrs. Adolphus Brown, S. Kendall, James B. Kendall, M. W. Marsh and George Prentiss, and found them entirely free from disease. Most of the animals were in very fine condition. It is a singular fact that one of the above herds run in a pasture beside that of Mr. Chenery, where the disease originated. Yet no disease had appeared among the animals. The result of the observations of the Commissioners in this respect is that the disease is not conveyed in the air. It is contagious, and not epidemic.

The farm of Mr. Chenery was also visited. There were no new cases of the disease. Mr. Lathrop commends Mr. Chenery for the precautions which he has taken since he became aware of the dangerous character of the disease, to prevent it from spreading.

Hon. Amasa Walker, another of the Commis-

sioners, made a further examination among the herds in Brookfield, but found no new cases.

A meeting of the Commissioners and surgeons was held at the State House on Wednesday. The appropriation of \$10,000 is considered too small by some \$5000, and measures were taken to raise a guaranty fund, to secure the required amount. We are informed by Dr. Dadd, that the Commissioners are satisfied that, with one exception, the disease is confined to North Brookfield, and that the evil may be eradicated by the slaughter of the infected herds, and the adoption of the proper precautions. The reports of the disease having appeared in New Hampshire are considered unfounded, and the disease in Essex County was entirely different from pleuro-pneumonia.

#### WHITEWASHING—A WHITEWASH.

This is a subject upon which our farmers require "line upon line and precept upon precept." Whitewash is one of the most valuable articles in the world, when properly applied. It prevents not only the decay of wood, but condances greatly to the healthiness of all buildings, whether of wood or stone. Outbuildings and fences, when not painted, should be supplied once or twice every year with a good coat of whitewash, which should be prepared in the following way: Take a clean, water-tight barrel or other suitable cask, and put into it half a bushel of lime. Slack it by pouring water over it, boiling hot, and in sufficient quantity to cover it five inches deep, and stir it briskly till thoroughly slaked. When the slaking has been effected, dissolve it in water, and add two pounds of sulphate of zinc, and one of common salt. These will cause the wash to harden, and prevent its cracking, which gives an unseemly appearance to the work. If desirable, a beautiful cream color may be communicated to the above wash, by adding three pounds of yellow ochre; or a good pearl or lead color, by the addition of lamp, vine or ivory black. For fawn color, add four pounds umber—Turkish or American (the latter is the cheapest)—one pound Indian red and one pound common lampblack. For common stone color, add four pounds raw umber, and two pounds lampblack.

This wash may be applied with a common whitewash brush, and will be found much superior both in appearance and durability, to common whitewash.—*Germantown Telegraph.*

#### FARM RECORD.

Who does not, in the spring-time, desire to know at what time in years past he plowed and planted, and whether he had good or poor crops, and when he first had green peas and new potatoes, and when the robins and bluebirds first announced that summer was near?

The FARM RECORD, just published by C. M. Saxton, Barker & Co., and for sale by A. Williams & Co., is a nice quarto book, arranged with blanks for the farmer's use, in which he may rate all such

facts as the above, and a thousand more, such as the cost of labor on each field and crop, every expense of repairs, tools, stock, and the like, the course of the winds, the rainfall, frosts, and all else that belongs to the climate.

Accurate farm accounts are almost unknown in this country, and yet without them, we can feel no assurance as to the profit or loss of any operation. This book is arranged for keeping them accurately for 25 years, beginning with 1860. If farmers would but be as accurate as merchants, in their farm affairs, agriculture would soon become here, as it is in Europe in several countries, a certain and profitable business, instead of the chance matter it too often is with us.

We earnestly advise every farmer to keep careful and reliable memoranda of all his operations, and we know of no more convenient form than that here presented, for preserving the incidents of the farm, for future reference and comparison.

*For the New England Farmer.*

#### STUDIES OF THE SOIL.—No. 2.

BY WILLIAM EDSON.

Upon the examination of any productive soil we find the following arrangement of strata:

1. A layer of dark earth varying in thickness from a few inches to a foot or more. Chemically, this soil contains more carbon and ammonia, or in other words, more organized matter, than the subjacent strata.

2. A layer of earth which is generally finer in its composition and lighter in color than the first; this, also, contains some vegetable matter, but usually partakes more of the original nature of the soil than it does of the first or carbonized stratum. The thickness is commonly but a few inches. In many cases we find no well defined stratum to which we can give the name of subsoil, the whole mass, to the depth of several feet, presents a uniform appearance, with the exception that the upper portion shows a slight change at its junction with the first stratum. The cause for the absence of a well defined subsoil must be assigned to the porosity and slight retentiveness of the mass. It occurs in morines and alluvials, very rarely in primitive, lake or river deposited soils.

3. Where there is a definite subsoil we find immediately under it a stratum of impervious earth, rock, or perhaps a permanent water table. Impervious earth in this situation receives the name of "pan" or "hard-pan."

The above division is clearly independent of any geological formation. It depends entirely upon causes that are in perpetual action; these are, air, rain, change of temperature and vegetation.

For the purpose of clearly understanding how this division is produced, let us suppose a tract of country has just undergone some great geological change, and that it presents at the surface a conglomeration of materials, but no stratification or definite division. If we penetrate it, we find that its nature does not change as we descend, at

least for a depth that exceeds that of any earth that has effect upon vegetation. Such soil must of necessity be barren; though it may contain all of the elements of a productive soil, and even in what is said to be the right proportion, its elements are held in such close chemical conformation as to be useless for the nourishment of vegetation. Now, if we consider the action of time, or rather what is called weathering, upon this mass, we shall see how the surface strata receive their varieties of soils, subsoils and pans.

The great agents effecting these changes are, as has been stated above, air, and its gases, rain, change of temperature and vegetation. The gases held in the atmosphere cannot act upon the soil to any extent otherwise than through the agencies of rain or vegetation.

These gases are oxygen, hydrogen, nitrogen and carbonic acid. Oxygen exists in the atmosphere in two forms, viz: in chemical combination with carbon, forming carbonic acid gas, and in mechanical combination with nitrogen, forming air. Hydrogen exists in but one form, that is in combination with nitrogen forming ammonia.

Carbonic acid gas has occasioned great inquiry among modern philosophers on account of its connection with the coal formations. It has been strongly argued by some that at one period of the earth's existence, viz: the carboniferous, this gas was much more plentiful than at present. The advocates of this theory draw their argument principally from the fact that large quantities of carbon are annually secreted by plants and trees, and that a large part of these are not again decomposed, but are buried in the earth, thus permanently removing from the atmosphere a great portion of its carbon.

The unsoundness of this argument will be made apparent by applying precisely the same line of reasoning to the earth, thus: through the agency of volcanoes, springs, &c., large quantities of carbonic acid are known to be taken from the earth and given to the atmosphere, therefore, in the early periods of the earth's history, much less carbon existed in the atmosphere than at present. The truth lies in neither the one nor the other of these arguments, but in both. While it is true that the plants are constantly absorbing and depositing this gas, the volcanoes and springs are decomposing and dispersing it. Thus nature shows herself ever evenhanded.

Although carbonic acid gas forms but one twenty-five hundredth part of the atmosphere, its action upon vegetation is of the greatest importance. Some maintain that plants can derive their carbon from no other source, all admit that the greater part is thus derived. Its action upon the soil is mostly through the agency of vegetation; but still it performs an important part independently, by decomposing almost all minerals. It acts as a mechanical agent in making the soil finer, and, in roughening the particles, helps to keep it open to the action of air and water. The only instance in which carbonic acid is injurious to the soil, is when it, in connection with iron, forms graphite or black lead. It may be solely owing to this action that the first oxide of iron is so poisonous to the soil. In this case the iron does not combine with the carbon, but simply acts as an excitant for the carbon to form itself into graphite.

When this action does not take place, an excess of carbonic acid may render soil unproductive, but it always improves it in richness that may at any time be made available for cultivation by simple exposure to the air, or by the action of alkalies. An excess of carbonic acid is rarely to be found unless in undrained lands.

Ammonia is thought to produce no effect upon plants through the agency of the atmosphere, but to act upon them from the soil alone. Ammonia is collected from the atmosphere by rains and dews, and acts upon soils as an alkali, neutralizing acids, and decomposing siliceous, forming compounds soluble in water. Though this gas forms but one twenty-eight-millionth part of the atmosphere, it is of the very highest importance in the formation of productive soils. But as its action in this case is intimately connected with that of rains, dews and changes of temperature, it will not be considered as an independent agent, assuming that its effect is included within that of weathering.

By the term weathering I mean to express such action as temperature, rain, dew and aeration may have upon any formation, the time within which it has taken place being unlimited.

The following table and remarks by Stockhardt illustrate, in a very forcible manner, the action of rain and change of temperature in producing the stratification of soils. "Basalt, an intimate mixture of felspar and augite, exhibited the following differences in a comparison of its constituents in the fresh and weathered condition :

	Fresh Basalt.	Weathered Basalt.	Consequently dissolved and removed by water.
Alumina.....	100	100	
Peroxide of iron.....	80	78	2
Silica.....	233	228	55
Lime.....	43	43	20
Magnesia.....	50	20	10
Potash.....	7	24	44
Soda.....	28	74	144

The first thing resulting, with great clearness, from these figures, is the diverse *degrees of solubility* of the individual constituents of basalt; the fresh, solid basalt had lost approximately by its weathering, of its

Alumina.....	0
Peroxide of iron.....	1.40th.
Silica.....	1.5th.
Alkaline earths, (lime and magnesia).....	1.3d.
Alkalies, (potash and soda).....	2.3ds.

If we have to regard those constituents which have been lost in the greatest proportion as the most easily soluble, those lost in the smallest quantity as the most difficult of solution, it follows that the alkalies pass into solution first and most abundantly in weathering, next the alkaline earths, and then the silica."

Assuming that the same action will take place in the weathering of a soil derived from granite rock, the analysis of which is

Alumina.....	12.90 lbs.
Oxide of iron.....	1.96 "
Silica.....	75.35 "
Alkaline earths, lime, magnesia and manganese.....	1.59 "
Alkalies, potash and soda.....	7.50 "
	100.00 lbs.

After a certain amount of weathering the analysis would be as follows, supposing that the soil is so situated that its soluble portion is removed by a surplus of water:

Alumina.....	16.41 lbs.
Oxide of iron.....	2.42 "
Silica.....	76.65 "
Alkaline earths.....	1.33 "
Alkalies.....	3.19 "
	100.00 lbs.

Again, instead of supposing the soil to lose a certain portion of its soluble matter, we suppose it to be so placed that it shall receive the same portion that in the former case we had conceived it to have lost, analysis will then give,

Alumina.....	10.75 lbs.
Oxide of iron.....	1.66 "
Silica.....	75.35 "
Alkaline earth.....	1.78 "
Alkalies.....	10.48 "
	100.00 lbs.

Though the above are but supposed cases, yet action and results of precisely the same nature are constantly occurring. Thus, at the top of a hill the soil is constantly losing its soluble portion, on its gentler slopes near the bottom it may receive as much as it loses, and thus remain constant. The valley at its foot will gain in its most soluble part as it receives all that the hill-top loses. For convenience of reference the analyses are here given together in one table :

	Hill top.	Middle ground.	Valley.
Alumina.....	16.41 lbs.	12.90 lbs.	10.75 lbs.
Oxide of iron.....	2.42 "	1.96 "	1.66 "
Silica.....	76.65 "	75.35 "	75.35 "
Alkaline earths.....	1.33 "	1.59 "	1.78 "
Alkalies.....	3.19 "	7.50 "	10.48 "
	100.00 lbs.	100.00 lbs.	100.00 lbs.

The last table illustrates clearly the effect of weathering upon soils, and explains why analyses may show great diversity of composition upon the same farm, and where it is evident that the soils all came from the same original rock. It also, to a certain extent, explains the division of the surface strata into soil, subsoil and pan; the part lying nearest the air being more and differently affected than that lower down, in a short time becomes quite distinct in composition and texture.

Inspection of the last table will also show that soluble ingredients are always increasing in the valleys and diminishing on the hills; thus, in the course of time the hills must become barren, unless protected by undisturbed vegetation, while the low lands increase in mineral richness year by year.

Boston, April 16, 1860.

For the New England Farmer.

## HOW TO GET A GREAT CROP OF POTATOES.

When any of my neighbors raise better crops or get them with less labor than I can, I am apt to want to know how they do it. On the other hand, if they have extravagant theories, do a great deal of extra work on their land, fuss a great deal with composting manures, and thoroughly pulverizing the land, and still do not show any better crops than their neighbors, I am not particularly inquisitive to know or practice their theories.

Happening a few days ago to be in the cellar of Capt. S. Hayden, of Hollis, I noticed his bins of splendid potatoes, and had the curiosity to inquire how he raised them. He told me that on ground



plowed in the spring he furrowed as deep as he could without turning up the turf. He prepared his manure by putting in the green manure some loam, ashes and brine or salt not very strong. He cut his potatoes so that one as large as a hen's egg would be divided into three or four pieces, and put three pieces in a hill, the skin side up, in a triangle of about five or six inches apart. He then put a shovelful of the manure on the top of the potatoes. The result was that his potatoes yielded at the rate of from eight to twelve hills to the bushel of good market potatoes. He told me he took good-sized potatoes to plant. The potatoes he raised were large enough—would average as large as turkeys' eggs. I shall try it, and if any of your readers would like to do the same, you may give them a chance. ED. EMERSON.

*Hollis, April 20, 1860.*

*For the New England Farmer.*

#### DECAY OF PEAR TREES.

The pear tree is considered to be a longer lived tree, than the apple; notwithstanding this, most of our newly introduced fruits show symptoms of decay, while on the contrary, many of the old varieties, which are scattered here and there throughout New England, are still in a healthy and bearing state. If it is admitted that the natural life of this tree is upwards of 100 years, it becomes of the highest importance to ascertain, if possible, the cause of this premature decay.

The old varieties alluded to, as far as we know them, are growing upon the spot where they came up from seed, or where transplanted when young with their tap root uninjured. Our cultivators at the present time invariably cut off this tap root, in order that lateral roots may multiply, and the trees grow faster, and to appearance more vigorously, as they unquestionably do for a time, but not, as we apprehend, permanently; in nature there is an equilibrium between the roots and top of all trees, and by cutting off the tap root, we interfere with its healthy action, by producing a forced growth, and a sort of plethora, which may tend to produce disease, although it may hasten its bearing. Another cause which may tend to hasten this decay may be from the method pursued by Van Mons, from whom many of the new varieties proceeded, the leading feature of whose theory was to subdue or enfeeble the original coarse luxuriousness of the tree, by gathering his fruit from which he took his seed before being fully ripe, allowing the fruit to rot; from the seedlings produced, he cut off the tap roots, and shortened the side branches, besides planting these trees very near together. Duhamel, of France, was in the habit of planting seed from the finest table pears of his day, without producing scarcely one fine variety; Van Mons, on the contrary, by the enfeebling process, has produced a score of fine sorts.

The healthiest pear trees we have recently seen were upon the farm of Gen. Josiah Newhall, of Lynnfield; these were grown from seed sown some years since, and they were remarkably thrifty, and much larger than any we had ever seen at that age from the seed; a few of these were in flower last spring. These trees had not been pruned in root or side branches, these side branches clothed with leaves protecting the trunk from the scorching rays of an August sun. We apprehend that

it will be found that the cutting off the tap root, and pruning the side limbs of our trees when young, is a bad practice.

An Illinois cultivator has said that "the effect of pruning the trunks of young trees severely results from disturbing the natural relations of the ascending and descending sap." He allowed the shoots on the trunks to grow on, and in two years they covered them to the ground; his trees then started with a vigorous growth throughout the whole top, and are now loaded with fruit, while a neighbor who continued the practice of trimming the bodies of his trees, lost them by what he called pear blight. Pear trees, particularly when young, are subject to a sort of dry canker, or desiccation of the bark, which we think is caused by the powerful rays of a burning sun, occurring immediately after a shower, striking the branches still wet; one proof of this is the fact, that we find these appearances generally on the south side of the stem, more especially on the south south-west side, or towards the 2 o'clock sun; from this we infer, that nature intends these side branches, with their leaves, to protect the tender bark of young trees. The pear tree should not be planted in swampy or wet land, or where water stands under the surface (or subsoil.) If in rather wet soil, it may be necessary to take off or bend up the tap root, in order that the roots may be kept near the surface; if, however, the roots of any fruit tree enter and remain in a swampy or wet soil, such roots will decay, and a corresponding decay (sometimes called canker,) will be seen commencing in the top limbs.

*Salem, Mass., 1860.*

J. M. L.

*For the New England Farmer.*

#### MARKET DAY IN ESSEX.

The first market day of the season, for Essex, came off yesterday at Danvers. As was feared, a variety of incidents combined to embarrass the contemplated operations of the day.

1. Our farmers are very busy at home, and cannot well spare the time to attend such meetings.

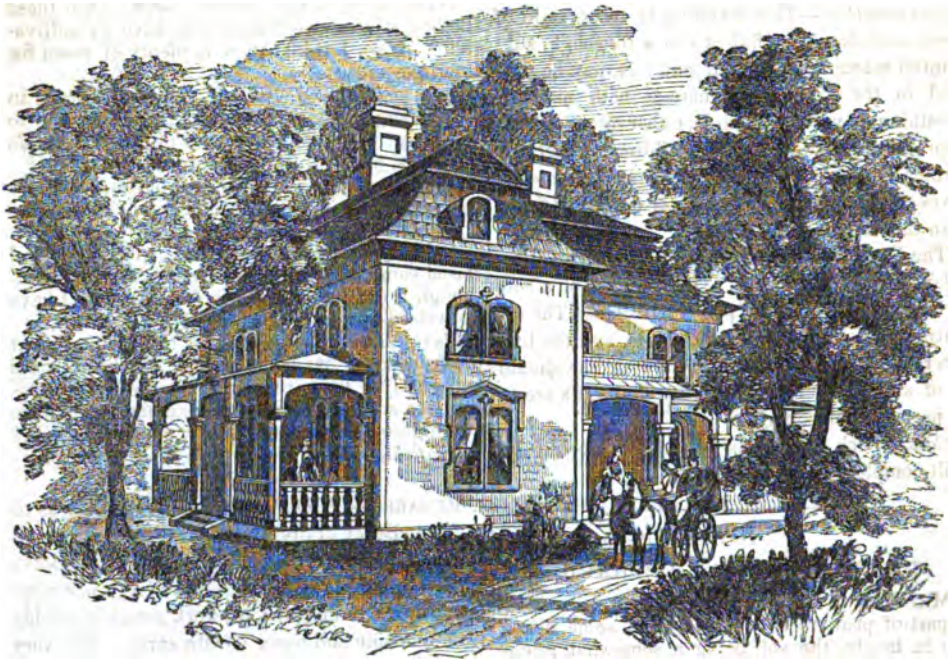
2. The prevailing cattle distemper has thrown a damper over all trade in cattle, and people are not disposed to purchase much, especially animals recently imported; the apprehension being that this malady is more apparent in the improved breeds, (as they are called,) than in our natives. This brings to mind what was told me yesterday by Mr. Wm. Osborn, of Lynn. He said in the days of Henry Colman, he had a native cow, that gave in 78 days, from January 1st, onward, forty pounds of milk per day. This cow he exhibited at Brighton, where she obtained the first premium. He said he had owned many cows, but had found his natives best for milk, and supported at least expense of feed. This harmonizes so well with information from other sources, that I thought it might be worthy a place in your farmer's journal.

*April 25, 1860.*

F.

HAY.—"H—K—," Kennebunk, Me., will find the person he wishes to communicate with, by addressing Winthrop H. Dudley, dealer in hay, Boston.





### DESIGN FOR A SUBURBAN VILLA.

BY GEO. E. HARNEY, LYNN, MASS.

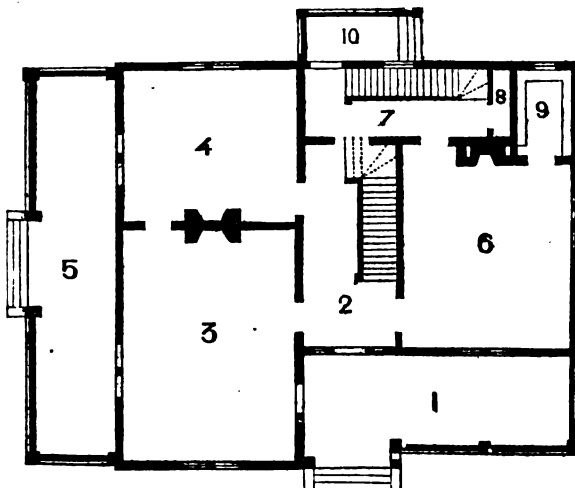
There seems to be a demand at present for a class of houses of moderate size and accommodation, suitable for the small lots in the immediate neighborhood of the city, and which can be built for a small outlay—say from \$3000 to \$5000. In our present design we have given an example of this class of dwelling, and as its situation de-

mands, have given it more architectural finish than any of our former designs.

No. 1 is the front entrance portico, opening into the hall, No. 2, 8 feet wide, and containing front stairs to chambers. The first door on the left opens into the parlor, No. 3, 15 feet by 20, lighted by two mullioned windows, one of which reaches to the floor and opens upon the veranda, No. 5. The library, No. 4, is 13 feet by 15, and opens upon the veranda in the same manner as the parlor. No. 6, the dining hall, measures 15 feet by 17½, and contains a large closet, No. 9, fitted up with a dumb waiter rising from the kitchen below. No. 7, the back entry, measures 6 feet by 16, contains stairs to chambers and basement floors, and opens upon a gallery, No. 10, leading to the yard; under the gallery is the yard entrance to the basement.

The second floor contains four good sized chambers with bathing-rooms, dressing-rooms and closets.

In the attic, which should be finished through out, will be three large



PLAN OF PRINCIPAL FLOOR.

bedrooms, besides a storage for trunks, &c. The first story is 11 feet high in clear, and the second 9½ feet.

**Construction.**—This dwelling is to be built of wood, and should be finished in a thorough, substantial manner, inside and out. It may be covered in the horizontal manner with matched sheathing or with clapboards, either method being appropriate to this style of building, though the former, which is also rather more expensive, gives the appearance of a greater degree of finish than the latter.

The French roof may be covered with semicircular patterned shingles. There should be a cornice run through all the principal rooms. The architraves of the windows and doors, and the balusters, post and rail of the front staircase should be of simple but heavy designs. The walls are to be prepared for papering.

**Cost.**—Such a building as the above could be built complete for about \$4000.

*For the New England Farmer.*

#### DRAINING A PEAR ORCHARD.

MR. EDITOR:—I have an orchard consisting in part of pear trees, some of them some dozen feet in height, the soil being a somewhat retentive loam, resting on hard pan at about two feet below the surface, which has never been drained, and I would like your opinion as to the expediency of underdraining it now?

The trees are twenty feet apart each way, and the land slopes to the north about one foot in forty or fifty, affording ample fall to carry off the water, and the only doubts in my own mind are in regard to cutting the roots so much as would be necessary, and whether the drains would be effective without subsoiling, which would be impracticable now. The hard pan cannot be excavated without a pick or crowbar, and it seems to me that it would be nearly impossible for the water to penetrate it so as to dry the land with any degree of rapidity in spring, which is about the only time when there is a superabundance of moisture. I think, from an abstract of Dr. Fisher's lecture at Greenfield, that the soil which he has drained for trees may be similar to mine, and if he or any other of your readers can throw any light on the subject, and in case I should undertake to drain it, advise as to the best manner of digging the drains, depth, &c., I would thank them to express the same in your paper.

Perhaps I ought to add that the land has been plowed, with one or two exceptions, every year since the trees were planted, and in plowing eight inches the plow would strike, perhaps twenty fast stones, many of which would require blasting to remove them.

I would also like to hear the experience of those fruit-growers who have the following varieties of apples:

**Red Russet.**—This has been very highly puffed by some, but, in reading pomological reports, I never see any allusion to it. The few specimens I have seen were finer grained and richer than

the Baldwin, but a large portion of them were badly cracked; they were, however, grown in an unfavorable location.

**Danvers Sweet and Seaver Sweet.**—Are these the best winter sweet apples we have in cultivation? If so, I think there is plenty of room for improvement.

**Ramsdell's Sweet.**—I find quite a diversity in size among these, and also a slight bitter taste to the fruit. Does the experience of others coincide with this, and is this variety worth cultivating?

**Maiden's Blush.**—This I find quite productive and very beautiful, but I think it deficient in flavor.

**Cole's Quince.**—The first single specimen that I raised came fully up to Mr. Cole's description, although it did not ripen till October, but I have not raised any equal to it since.

**Early Harvest.**—This seems to grow well, but the fruit so far has been "scarce," and quite small and gnarly. Is it sufficiently adapted to this locality to succeed without such an amount of care and high cultivation as will eat up all the profit?

Ashfield, 1860.

WM. F. BASSETT.

**REMARKS.**—We have no doubt whatever as to the expediency of draining your pear orchard. In so doing, you need not injure many of the roots; when you approach a tree in ditching, work carefully, and if you find a root, work round it, and lay it on one side and cover it with earth. The very act of draining, if thoroughly done, would make the whole subsoil porous in a degree, and that hard pan which you would have to "excavate with a pick and crowbar," would allow the water to pass quite freely, after a while. Why? Because when you have removed the standing water by taking it off through the ditches, the whole subsoil would contract, and thus fill it with innumerable little cracks, or fissures, through which the water would find its way to the bottom of the drain. This is a natural, highly beneficial and beautiful operation. If your drains are sufficiently near, say 20 feet, if the land is quite wet, 30 feet, or 40 feet, if only moderately so, they will operate in two directions—in the line of the drain, and in a far greater degree laterally. If the bottom of the drain is four feet from the surface, and the drains are 20 feet apart, you will secure a fall of four feet in ten—that is, from the surface of the ground to the bottom of the drain! Such a fall, after the subsoil is well cracked, will cause a rapid drainage. For a full and clear statement of the whole matter, see Judge FRENCH's work on *Farm Drainage*. A careful perusal of this will save you ten times its cost, if you intend to drain several acres.

**Red Russet.**—We have never raised this apple, and must leave an account of it to others.

**Danvers and Seaver Sweet.**—Both excellent, but it would be saying a great deal to pronounce them the best winter sweet apples we have.

**The Ramsdell Sweet.**—Is highly esteemed by many persons. Most of our apples have been de-

fective for several years past, and this may be the case with the Ramsdell.

*The Maiden Blush*.—Grows in great perfection in this region. No apple has made a finer appearance at the Shows than this.

*Early Harvest*.—We have not found this apple to require extraordinary care. Downing thought it the finest early apple yet known.

On account of illness, this and three or four other articles have been detained upon our table.

*For the New England Farmer.*

#### COST OF RAISING CORN AND POTATOES.

MR. EDITOR:—During the season previous to the last, an exact account was kept by me of the cost of raising a crop of corn on two lots of land, one consisting of one, the other of three-fourths of an acre; and also the cost of raising one-fourth of an acre of potatoes. My mode of management was this: to reckon the interest of the land at the cost per acre, the labor of oxen  $12\frac{1}{2}$  cents per hour, the same per hour for myself, the horse the same when worked in the cart, or furrowing and cultivating, a boy  $6\frac{1}{2}$  cents per hour, the manure at \$4 per cord, and the worth of the seed used at the market price. This was the debtor side. I supposed the corn fodder would pay the cost of harvesting the corn.

On the creditor side of the corn, I added one-fourth the worth of the manure as remaining in the land, the strength not exhausted for a future crop, and one-half of the number of bushels of corn raised on the cob, measured at harvesting, after deducting one-fifth for shrinkage, and the market price for the beans, potatoes and pumpkins raised in and around the corn. The result was, that my corn cost me about one dollar per bushel, and the potatoes thirty-nine cents per bushel. But this I do not consider a fair trial, inasmuch as both pieces where the corn was raised had borne crops (one of corn, the other of potatoes) the year previous, and where the potatoes were raised the land was manured heavily on the previous, as well as the same year, which caused them to decay badly.

As to the measurement of corn, some would doubt the propriety of deducting one-fifth for shrinkage, especially when the corn has well matured, and is of an early variety, (King Philip principally,) as in my case.

The past year I have also kept an account of the cost of raising two lots of corn on green sward ground, part of it plowed in the fall previous, and the remainder in the spring; one lot contains one acre, and the other one acre and twenty-nine rods; the particulars of which I will send you if desirable, and also the cost per ton of harvesting both English and meadow hay.

F. E. H.

*West Bridgewater, 1860.*

A DANGEROUS PRACTICE.—It is said that the Messrs. Black, of Edinburgh, the famous publishers, have introduced the practice of announcing the weight of their books on the covers. It is expected that other publishers will imitate them.

This is carrying frankness to a dangerous extreme. If we knew beforehand how heavy half of the new issues from the press were, should we ever buy them?—*Providence Journal*.

#### THE BIRD THAT SANG IN MAY.

A bird last spring came to my window-shutter,  
One lovely morning at the break of day;  
And from his little throat did sweetly utter  
A most melodious lay.

He had no language for his joyous passion,  
No solemn measure, no artistic rhyme;  
Yet no devoted minstrel e'er did fashion  
Such perfect tune and time.

It seemed of thousand joys a thousand stories,  
All gushing forth in one tumultuous tide;  
A hallelujah for the morning-glories  
That bloomed on every side.

And with each canticle's voluptuous ending,  
He sipped a dew-drop from the dripping pane;  
Then heavenward his little bill extending,  
Broke forth in song again.

I thought to emulate his wild emotion,  
And learn thanksgiving from his tuneft tongue;  
But human heart ne'er uttered such devotion,  
Nor human lips such song.

At length he flew and left me in my sorrow,  
Lest I should hear those tender notes no more;  
And though I early waked for him each morn,  
He came not nigh my door.

But once again, one silent summer even,  
I met him hopping in the new-mown hay;  
But he was mute, and looked not up to heaven—  
The bird that sung in May.

Though now I hear from dawn to twilight hour  
The hoarse woodpecker and the noisy jay,  
In vain I seek through leafless grove and bower  
The bird that sung in May.

And such, methinks, are childhood's dawning pleasures.  
They charm a moment and then fly away;  
Through life we sigh and seek those missing treasures,  
The birds that sung in May.

This little lesson, then, my friend, remember,  
To seize each bright-winged blessing in its day;  
And never hope to catch in cold December,  
The bird that sung in May!

WIRE AND HOOPS.—At the wire works of H. S. Washburn, in Worcester, Mass., some iron wire is made which is as fine as hair. Of number 62 wire, which is the finest, 13 miles will only weigh about 7 ounces. About 20,000 yards of steel crinoline is now manufactured daily. It is sold when covered, at wholesale, at about 50 cents a pound, and about three-quarters of a pound is required for each hooped skirt. It is calculated that about 5,000,000 lbs. of crinoline have been used up in hoops, the present year, by various makers. So says an exchange.

NEW GRAPES.—The Patent Office has received several of the choicest varieties of grape slips from Hungary, which it is proposed to have propagated under the direction of that office, in order to determine their adaptability to the soil of the different States. The fruit of these vines is said to be superior to anything of the kind grown in this country, either for wine making, or for table use.

*For the New England Farmer.*

### SPAYING COWS.

MESSRS. EDITORS:—Public attention being at this time awakened to the subject of "spayed cows," I propose in this article to give you my own experience, thinking it may perhaps be of interest to the farming community.

I have in my herd 13 cows, which have at different times been subjected to this operation for the purpose of rendering them permanent milkers; the operation being performed by Dr. GEO. H. DADD, of Boston. Sufficient time has not yet elapsed, to enable me to learn whether all the advantages which are promised as the results of spaying, will follow, such as duration of milking, fattening, &c.

I will, however, lay the matter before your readers, and let them judge for themselves, whether it is for their advantage to have their cows spayed, or let them remain bearing calves, as is the usual custom. Of course, this will depend on the purposes for which cows are kept, whether for milk, butter and cheese alone, or for raising stock.

It is now a year since the first three cows were spayed, one in July, and four in October last, and five on the 11th of the present month. The ages of these cows vary from five to thirteen years, and in every instance, the younger the cow, and the greater her natural milking qualities, the more favorable have been the results. They have all continued to give an uninterrupted yield of milk, varying with the season, and succulency and richness of food. A slight improvement in the quality of the food, immediately increases the quantity of milk.

As I sell my milk in the Boston market, I have but slight opportunity of testing its quality, except through my customers, and in every instance, where I have been able to supply them with milk from spayed cows, it has given entire satisfaction. In June last, I made one experiment in making butter, and from forty-three quarts (wine) of the milk of three spayed cows, which before the operation were not noted for their butter qualities, were made 5½ pounds of butter. This is not equal to the reputed yield from ALDERNEY or DEVON cows, but I believe it is much better than the average of cows in the State. None of the eight cows have given at any time during the winter, less than six quarts of milk per day, and the youngest and best not less than eight quarts. Their average yield during the past three days, fed on good hay and one quart cotton seed meal, and ½ bushel of parsnips each, has been as follows:

	Spayed in	20th inst.	21st inst.	22d inst.
No. 1, aged 13,	April, 1859.	14 lbs.	15 lbs.	14 lbs.
" 2, " 13,	"	15 "	16 "	15 "
" 3, " 13,	"	19½ "	23½ "	21½ "
" 4, " 12,	Oct., 1859.	18 "	17½ "	17½ "
" 5, " 9,	"	23 "	20 "	20 "
" 6, " 6,	"	20 "	21½ "	21½ "
" 7, " 8,	July, 1859.	25 "	27 "	25 "

None of these have as yet shown any tendency to fatten. If milk is the object desired, we wish all the food given to cows to go to milk, and it is not to be expected, nor is it desirable, that cows giving a full yield of milk, will take on flesh very rapidly. I know of one instance, however, where a spayed cow, after having given an average of

over eight quarts per day for three years, had become exceedingly fat.

There is no danger whatever attending the operation. The cows require moderate feeding and good care, and in four weeks, the wounds are entirely healed, and there is generally but slight loss in their yield of milk immediately after the operation. Three of the cows spayed on the 11th inst. gave respectively 10, 13 and 19 pounds of milk the evening previous, and 7½, 9½ and 15 pounds of milk 24 hours after the operation, and have given a larger quantity at each milking, since. The fourth was more affected, and did not do so well, while the fifth was a farrow cow, spayed for fattening alone.

I am so well satisfied with the result of my experiments, that I intend to have most of my cows spayed, as they come into full milking, and I can especially recommend any one, who keeps a single cow for family use, to do the same, as there can be no doubt of the superior quality and wholesomeness of milk from spayed cows, especially for children.

For the information of any one wishing to try the experiment, I will state that the usual time for spaying cows is from three to six weeks after calving.

EDWARD R. ANDREWS.

*West Roxbury, April 23, 1860.*

### EXTRACTS AND REPLIES.

#### RAISING LAMBS BY HAND.

I wish to inquire through your paper the method of raising lambs by hand? It often happens that the supply of milk is cut off, by some reason or another, so we are obliged to feed the lamb with cow's milk, and just as sure as we do, just so sure the lamb dies. Is the trouble in feeding it too much or too little?

Any light upon the subject from any one will be very gratefully received by

*Woodstock, Vt., 1860. A YOUNG FARMER.*

REMARKS.—We have often saved lambs under such circumstances by coaxing another sheep to nurse the unfortunate lamb with her own. Two or three years since we brought up a fine pair of Spanish merino lambs entirely by hand, and on cow's milk, by diluting it and feeding them several times each day. We began by filling a bottle with milk and stretching over the mouth of the bottle an India rubber tube. The lambs soon learned to suck through this, and after two or three weeks the milk was given in a basin, and the finger introduced into the lamb's mouth, which he would suck, drawing milk at the same time.

#### BUCKLIN'S IMPROVED HARROW.

Being a well-wisher to all useful and valuable improvements, I wish to say a few words to our brother farmers about Moses Bucklin's Harrow, through your valuable paper. I bought one last spring of Messrs. Hobert & Spaulding, of Pepperell. I put it on sward land first, going with the furrows, then across them, which made it mellow as an old field. I then split my corn hills two furrows in a row deep, then crossed the furrows

with the harrow and sowed my grain and grass seed. I then went the other way with the harrow, which left the land as mellow as a garden; the grass and grain came up as nice as I ever had any, and the grass now looks well. I think the harrow a valuable tool, and think I saved the full cost of it in labor in one year. There are two sizes of teeth. I prefer the seven inch.

EBEN RICHARDSON.

*Pepperell, Mass., April, 1860.*

REMARKS.—We know Mr. Richardson as an excellent farmer, and a person well qualified to judge of the value of an agricultural implement.

#### CREEPER BREED OF SHEEP.

I noticed in the March monthly of the *Farmer* an inquiry in regard to the Otter or Creeper sheep, and had I not at that time been particularly engaged, I would have answered the inquiry of your correspondent in some measure.

I believe it is about fifty years since the Creeper sheep were introduced into this neighborhood. They were recommended particularly as being peaceable. Our fences being mostly made of stone, our common sheep could walk over them with very little trouble, so that the Creeper sheep were quite an acquisition to our farmers. In regard to the other qualities of this breed of sheep, they are as hardy as other breeds; their flesh is as good; and I believe that in mixing the merino with them the wool is rather superior to that mixed with the common native sheep. The only objection to this breed of sheep that I know of, is, they require a little more attention at the time of dropping their lambs, as the lambs are not so strong for a day or two as most kinds of sheep. The war of 1812 tending to enhance the price of wool, merino sheep were introduced and became the rage of that day, so much that other breeds of sheep were cast in the shade. The Creeper sheep are not common in this vicinity. I believe that Dea. Joshua Coburn, of Dracut, has some of that kind in his flock, and if your correspondent wishes to obtain that breed of sheep, he can probably be accommodated by him.

ABEL GAGE.

*Felham, N. H., April, 1860.*

#### HAY CAPS—BLACKBERRY BUSHES.

I am about having some hay caps made; I wish to know the best way to keep them on the hay cock?

I have some blackberry bushes that have been set five years; last year they made canes six feet long; is it best to cut them in this spring, or let them go as they are?

JONAS HOLT.

*Andover, April, 1860.*

REMARKS.—Take cotton cloth worth eight or nine cents a yard—cut off a piece two yards (six feet) long—then cut another of equal length, and sew them together. That gives you a square of six feet. Turn the corners over an inch and sew down the point strong—that leaves a loop through which run a stout piece of twine, which, when tied, shall be an inch long. Now the cap is made. Take any pieces of clean pine board and split out pins 15 inches in length and whittle them to a point

at one end and leaving them three-fourths of an inch in diameter. Put the cap on the top of the cock, the pin through the string, and then, first with a downward and then upward motion, thrust the pin up into the hay cock. Do this with each corner and your hay will not suffer by standing out in a storm of a week.

Take out all the old wood from your blackberry bushes, and head down the canes you intend to let stand to about four feet in height.

#### MAPLE SUGAR.

As the maple sugar season is now over, I send you a statement of the sugar made by three persons in the yard of Messrs. P. & G. Beede, Sandwich, N. H.

About 1000 trees were tapped, mostly young second growth. We commenced to tap March 15, and finished making April 10, and have made 2300 lbs., the largest amount made in any yard in Carroll County. The largest part of this was run in small cakes, and the rest stirred off dry, and drained as follows:

Cakes.....	1406
Dry.....	378
Drained.....	616

2300 pounds.

Besides this, we have made molasses, &c., which would make at least 50 pounds more.

#### MAPLE HILL.

*Sandwich, N. H., April 16, 1860.*

REMARKS.—It is very pleasant to record the capital success of our friends in the sugar orchard of the Messrs. BEEDE,—but that pleasure might have been sweetened by some samples of their rare skill!

#### EXPERIMENTS ON SANDY LANDS.

Which is the cheapest and best of the two following experiments?

1. Spread a liberal dressing of good manure upon three or four acres of sandy loam land, plow under, plant with corn and seed down to grass the next year. Or,

2. Take the same piece of ground, put on a light dressing of manure, plant to corn, manuring in the hill, and then in the fall put on a good coat of clay, and the following spring lay down to grass.

Which of these two processes will produce the most permanent and best crops of grass?

A SUBSCRIBER'S SON.

*St. Johnsbury, Vt., 1860.*

REMARKS.—We think the latter course would produce the "most permanent and best crops of grass." The cheapness of the process would depend upon circumstances, such as the value of manure in your neighborhood, and the facility with which you can get the clay. If you must cart the clay a mile or more, the manuring process might be the cheapest. You must judge of these things from your own stand-point. The addition of good clay to sandy loams is a permanent im-

provement to them, one which they will feel for ages, making them more adhesive, retentive of manures, and making them more capable of receiving and retaining the most important atmospheric influences. When the mechanical texture of sandy loams is improved in this way, and they are once made rich by manure and careful culture, they become the most prolific and easiest cultivated lands we have.

#### WARMING OUR DWELLINGS.

Will some of your readers inform me which is the best method for heating a dwelling-house, as regards the cost of fixtures and fuel, and the more important matter of health? I am aware that the common method is to introduce a furnace, if a number of rooms are required to be heated. I understand some are introducing steam to warm with, and I wish to make inquiry in regard to its advantages or disadvantages; first, in regard to its being healthy. Second, how much it costs to get the apparatus put in working order for five or six rooms? Does it require more or less fuel and attention than the furnace, and are there any advantages derived other than warming the rooms?

SUBSCRIBER.

Medford, Mass., 1860.

REMARKS.—We believe the use of steam for warming our dwellings is, in every way, preferable to the use of stoves or furnaces,—such as health, economy, safety, and these include everything, we believe. The first cost of the steam fixtures is much larger than the cost of a furnace, but the consumption of fuel, and the current expense for repairs, much less. So far as health is concerned, the two modes of heating admit of no comparison, as in the case of steam the air is not vitiated in the slightest degree by the heat, while nearly all the heated air in the use of a furnace has been in contact with red hot iron! As regards safety, there is scarcely more room for comparison than in the case of health. In our mode of heating by steam there is no possibility of explosion, or of setting the house on fire. For further information call upon Messrs. Braman, Perham & Co., 8 Charlestown Street, Boston.

#### INCREASING MANURE ON A RENTED FARM.

I wish to propose an inquiry for some one or more of your correspondents to answer, viz.: Will it pay for any man who lives on a farm, not his own, but has only one-half the product of the farm on which he lives, to try to increase the quantity of home manufactured manure from 110 loads per annum, as heretofore, to 220 per annum? The opinion of some of our good farmers will much oblige an

INQUIRER.

East Concord, N. H., 1860.

#### SOUTH DOWN SHEEP.

Will you have the kindness to inform me through the *Farmer*, where I can get a South Down buck and one or more ewe lambs, and at

what price? I should like to get them about four months old, or after they have been weaned, which, I suppose, will be about August. Which is the *largest* breed of sheep, and where are they to be had, and at what price? A SUBSCRIBER.

April 2, 1860.

REMARKS.—Those wanting a customer will please reply.

#### CHERRY CURRANT.

Will you inform me where I can obtain cuttings or roots of the cherry currant, and also the price of the same?

C. W. S.

Cornish, N. H.

REMARKS.—Probably of any of the nurserymen who advertise in the *Farmer*.

#### WASH FOR APPLE TREE BORERS.

Is there any wash that will destroy the egg by which the apple tree borer is propagated?

Orange, Mass., 1860.

SUBSCRIBER.

REMARKS.—We know of none.

#### BEE FEED.

Two-thirds rye meal, one-third buckwheat flour, to be fed in the months of March and April, fed in pans or shallow boxes a short distance from the hive.

L. S. C.

Manchester, Mass., 1860.

For the New England Farmer.

#### A PREVENTIVE AGAINST THE CATTLE DISEASE.

Inoculate an animal of the swine, mule or horse kind with the cattle disease. I should prefer the latter. After it has come to maturity in the above swine, mule or horse, inoculate from either of them a creature of the herd kind. Be careful to take one that has always been in every respect free from the disease. When this last inoculation has come to full maturity, and has proved satisfactory, I think there can be no risk in inoculating from this last animal as fast as the infection can be obtained from it. The disease will then be half-blooded.

The public may demand some evidence of the utility of the above experiment. I would offer the following. It is well known that the small pox by passing through the constitution of the cow and its milk, is by the laws of nature disarmed of its malignity, so that it then passes through the constitution of man with the greatest ease and safety. Now I do not know why the malignity of the cattle disease should not be destroyed by passing it through the constitution of the mule or horse, and then through the before-mentioned herd kind.

If I am not mistaken, all that is needed to destroy the malignity of this disease, is to pass it through the constitution of two or three different species of animals, as those of the swine, horse, and one of the herd kind. If it be passed through three species of animals, it will lose seven-eighths of its virulence.

PAUL PILSBURY.

Georgetown, Mass., April, 1860.



For the New England Farmer.

# PRICES OF FARM PRODUCTS IN 1843 AND 1860.

MR. EDITOR:—With your permission, I propose to institute a comparison of prices, in a few of the leading farm productions, between the present and sixteen years since, at which time I commenced life for myself, as a farmer. This is suggested by hearing, almost every day, some one of this class complaining of hard times, falling off of prices, &c.

By reference to my diary, I find that, in the fall of 1843, I bought of one man, five cows, good ones, for \$50, or \$10 each; four calves, for \$7 for the lot; one yearling heifer, with calf, for \$5; one pair working cattle, (bulls) of seven feet girth, for \$45; one pair of very fine three years old steers, for \$80; a fair three years old colt, for \$50. The following spring, I purchased cows, the best I could find, to make up my number to twelve, for from \$15 to \$22, and a pair of oxen, in fine condition, and of over thirty-two hundred pounds weight, for \$72—\$70 being all the owner asked for the cattle, but he charged me two dollars for giving six months credit, which I was, by poverty, compelled to ask, not only on this occasion, but for all else that I purchased. The oxen I sold the following September, for \$68, in better condition than when I bought them. The butter made from my cows, not much odds of eighteen hundred pounds, brought me 13 cents per pound—12½ cents being the price paid, by same buyer, for his choice in the lots, of which there were many about town. My pork brought 4½ cents, poultry, 6 cents, oats, 25 cents, corn, 83 cents, it being on one of the hills of New Hampshire, where corn is never abundant, wheat, \$1.50, hay, I hauled three miles, and sold for \$6 per ton, (and was cheated out of my pay for it at that.)

For apples, common fruit, such as my farm produced, there was no sale, and for cider, I got 75 cents per barrel, and 4 cents for dried apples; potatoes, delivered at the "starch factory," 17 cents per bushel; wool, in the season of 1845, brought me 30 cents.

Now look on that, and then on this. Before me lies the *Sullivan Republican*, of the 26th inst., published in the town in which I sold most of my produce, from which I quote the following items, from under the head of "Prices Current:" wheat, per bushel, \$1.75, oats, 50 cents, corn, \$1.12, pork, round hog, per pound, 6 and 8 cents, potatoes, per bushel, 25 to 42 cents, apples, common, 50c to \$1.00, apples, dried, per pound, 7 to 10 cents, butter, 18 to 20 cents, poultry, 8 to 12 cents, wool, 50 to 55 cents, hay, per ton, \$10 to 12. And here the list ceases to help me in the comparison; the prices of horses, oxen and cows are not reported, and, moreover, with the present prices of these your readers are familiar, and will not fail to see that farmers are now-a-days realizing prices, for all they have to sell, nearly double what they did sixteen years ago. And yet they complain of hard times. You, Mr. Editor, or they, may supply the moral.

E. J.

## TO SAVE SQUASH AND MELON SEEDS PURE.

—L. L. Langstroth writes the *Rural New-Yorker*: The following method of obtaining pure seed, where different kinds of melons, squashes and cu-

cumbers were raised on a small plot of ground was practiced by me about twenty years ago:

Rise in the morning by break of day, before the bees are abroad. Select a number of female blossoms which have opened during the night. They may be known by growing on the end of the young squash, melon, &c., while the male blossoms ("false blows," as they are often called,) have no fruit. Scatter the pollen of the male blossoms upon the stamens of the female ones, and carefully cover the latter with millinet, or anything which will protect them from the visits of the bees. A piece of cotton cloth, or even a squash leaf, kept in place by a few clods of earth, will answer a good purpose. When the blossom withers, the covering may be removed, and the fruit marked by a colored string tied loosely around the vine.

## CULTIVATION OF PEACH TREES.

The general destruction of peach trees by the unfavorable seasons of 1858-9 has discouraged many of our people in the further cultivation of this delicious and wholesome fruit. Is this right? Is it not probable, that, guided by the experience we have gained in the past, we may continue the cultivation with some success,—that we may get a crop once in two or three years, at the worst, and perhaps annually for a succession of years. It is not likely that untoward seasons, such as those alluded to, will become general, and if they do not, by avoiding some of the errors which were quite common in cultivating the peach, we think paying crops may still be produced in most parts of New England. We prize the peach so highly that we should be willing to cultivate a few trees if we could get a crop only once in two or three years.

There are two difficulties in the way of our raising this delicious fruit. The first is the *winter-killing* of the trees, either by extreme cold, or, what is more probable, by the sudden and extreme changes that sometimes take place in our climate. This may be prevented, as a general thing, on a few trees, by inserting slender evergreens, pines, spruces, or hemlocks, into the head of the peach tree in the autumn, and keeping them there until the next spring. This will so sift the wind and protect the tree as to prevent winter-killing, in many cases.

Another preventive is to keep back the blossoms in the spring until all danger of frost is over. This may be effected by covering the roots with straw after the first light snow in the fall, or in the spring, when the snow is going off. This article being a non-conductor, will retain the frost about the roots till such times as it may be safe to favor blossoming. Trees also may be set on the north side of buildings, or hills, where their growth will be checked early in the autumn, and where they will come out late in the spring. In such positions, what wood grows, ripens and hard-



ens more thoroughly, and the tree has more vigor to resist changes of temperature.

Another precaution is, not to force the growth of the tree, either by placing it on a strong, rich soil, or by high manuring. Let it grow slowly, on a sandy loam, and annually, in the spring, head in the ends of the branches, so as to keep the head low and compact, with spurs growing out on the sides of the limbs, even down to the main stem.

We hope the peach tree will be planted, a few, at least, by those who have suitable land, all over New England, and by observing the suggestions we have offered, with such others as will occur to observing persons, we may once more have good peaches. Plant the pits and allow the trees to stand pretty closely until they fruit, then dig out the worthless ones, and leave the others for bearing trees. The natural tree is more hardy than grafted or budded ones, and fruit from the former is quite often very fine, though not equal to some of the budded varieties.

*For the New England Farmer.*

#### SEEDING GRASS LAND.

FRIEND BROWN:—I have for a long time felt it a duty that I owe to my brother farmers to say a word or two to them through the medium of the *Farmer* on the subject of seeding down to grass.

My way of doing it has been, for the last twelve years, to sow my seed before plowing, the first time, I think best, but if possible, before cross plowing. I generally plow deeper than my neighbors, and bury the seed deep, but it will come up in time; the roots are so deep that the hot August sun, instead of killing, strengthens, and when the ground lays bare and exposed as it has the past winter, and does more or less every spring, the roots are not liable to be drawn out and killed. I have sown on five different farms in this way, and on every variety of soil, from fine plain to heavy clay soil, from gravelly ledge to black muck, and never failed of getting a fair crop of grass when seeded in this way. When I used to bush or roll it in, about half the time I lost my grass. I have a piece seeded down with oats May 9th, 1859, where a large portion of the stubble is drawn out by the roots, but I have not found any grass roots drawn out, and where exposed to the sun it begins to look green, though high upon the backbone of creation. I should like to say a word, sometime, if agreeable, about curing seed, and raising potatoes. One dollar's worth extra seed often makes ten dollars' worth of hay.

What will cure a large blood wart on my colt?  
*Nelson, N. H., April, 1860. O. L. Dow.*

REMARKS.—We hope the suggestions of friend Dow, in regard to sowing grass seed, will be tried by our readers, as it strikes us that they may be valuable. We shall try his mode. In reply to his question about certain Hungarian cattle pastured for us under his care on the New Hampshire hills, we have to say that they did not do well;

we never succeeded in getting a calf from the fawn-colored Hungarian cow. The white heifers, short horn grades, are very promising. We shall be glad to hear from you again.

#### CRIBBING, OR CRIB BITING.

This article is introduced for the purpose of answering the inquiry of C. D. N., of Lexington, Mass.

"IS CRIBBING A DISEASE?"—I answer that it is *not*. It is not injurious to the horse that practices it, and the *Court of Appeal* have pronounced in favor of its innocuousness. Cribbing comes under the denomination of a bad habit or vice, which, like other bad habits and vices, are both inherited and acquired; it prevails mostly among horses of a windy or colicky predisposition. Yet any horse with a bad example near him, in the form of a confirmed cribber, and having but little to do except to devour hay and grain, may finally become a cribber; hence horses, like men, are not benefited by keeping bad company.

I am willing to admit that cribbers are not always in the best condition, although some of them have little to do and plenty to eat; in fact, many such animals appear lank and lean, yet it will be noticed that they almost always have a bulky abdomen, which is generally occupied by gas; this gas is not swallowed in the act of cribbing, as many persons suppose, but is generated within the stomach and intestines, in consequence of functional derangement of the digestive organs; hence, in plain language, most cribbers may be considered as the subjects of a most prevalent and fashionable malady, known to prevail among the members of the human species, called *indigestion* or *dyspepsia*.

The following paragraph I select from Mr. Percival's writings, which is more authoritative than anything I may possibly offer.

"In general, crib-biting ought rather to be regarded as a vice or habit than a disease; the latter I have never been able to regard it. Horses that are old crib-biters present the inconvenience of being faulty feeders, they require a great deal to satisfy them, and those which generate air in their stomachs are very subject to attacks of windy colic."

Finally a crib-biter often grows poor, not because he is a cribber, but for the simple reason that in his dyspeptic condition the digestive organs fail to elaborate from the food the requisite amount of chyme, chyle and blood, for the renovation and growth of the animal fabric.—*American Stock Journal*.

REMARKS.—Turn the horse out so that he can come to the bare ground for an hour or two each day for a few weeks, and see if he will then bite his crib.—*Ed. N. E. Farmer*.

RENTS AND WAGES IN ENGLAND.—During the eighty years preceding 1850—51, Mr. Tucker states, in his New Haven lectures, the rents of 26 counties had increased a little more than 100 per cent., while the wages of laborers had advanced only 34 per cent.

*For the New England Farmer.*

### MOWING MACHINES.

MR. EDITOR:—Sometime since I noticed in your columns, the following questions relative to mowing machines, by Mr. Smith, of Exeter, N. H., viz: "Is there a mowing machine that is practical for common farmers? and if so, which is it? and will it work over rough land, &c.?" These are the first questions a farmer naturally asks who is contemplating the purchase of a mower, and especially one whose means do not admit of experimenting. I think there is a mowing machine that is practical; one that can be managed by one or two horses, or with oxen, to the entire satisfaction of any reasonable man.

There are now some sixty houses manufacturing mowing machines, each claiming superiority. But mowing machines are not a speculation; they have become a reality; and farmers are driven by the high price of labor to test their practicability.

The Buckeye claims immense advantage in the flexibility of its finger-bar, and the folding of itself on to the frame work, thereby making a very portable machine; this is certainly an excellent quality; and the Ketchum claims advantage in crossing dead furrows, from the fact that their finger-bar is abreast of the shaft of the main wheel, and that they can attach a shorter or a longer finger-bar. The New Englander, with the conical pivot under its knife, gives it a rocking motion, and a shear cut. Now, to answer the question so frequently asked, "Which is the best?" is merely giving my opinion as to what would be a safe article for farmers to buy. Manny has undoubtedly patented some of the best principles that have yet been applied to mowers, and that machine comprises all the excellences of the numerous machines now in use. Those machines which are characterized by the flexibility of their finger-bar, possess, in reality, no advantage over the Manny, for the reason that the finger-bar of the Manny plays up and down independently of the driving work, while the weight rests entirely on wheels; with the other, there is the inconvenience of getting off and on, to fold up and turn down the finger-bar; and when down, there is a length of from four to six feet, of steel, wood or iron, with a weight of some hundred pounds or more, without any wheel to support the outer end, and no frame work back to protect it from whatever obstacles it may chance to encounter, while the power is applied above the axle of the driving wheel, making a complete grapple of the finger-bar.

But the Manny differs from other machines in having the power attached and applied directly to the finger-bar, and with the power so applied, all weight is removed from the finger-bar, the draft being up and over a castor wheel, which always finds its place like a castor wheel on a table leg, and when the machine meets an obstruction, its tendency is to rise. It has power in itself to start in the grass without backing—it can be gauged to cut from one to ten inches, by a lever placed at the right hand of the driver, which he can instantly use to raise the knife to pass over any obstruction that may be in the way.

I think the lever will throw this machine over a stone fifteen inches high; it can therefore be worked on any land that is hard enough for horses to travel on, and sufficiently smooth to swing a

scythe over, hill-sides presenting no difficulty; it will not upset.

Another grand feature of the Manny is its reel, which I contend no machine should operate without, from the fact that when the wind is blowing heavily in the direction the machine is moving, the grass lodges ahead of the knife, and is continually working down between them, and is cut so fine, that much of it is wasted, and it also requires three times the power to drive the machine, but just apply the reel, and this trouble is instantly removed.

I have seen many machines fail to work well with oxen, because the speed was not great enough to let the grass fall back of the finger-bar, but this machine I have seen, and known to work well with oxen.

In regard to the portability of the Manny, the driver may get on to the seat at the house, and if his field is ten miles distant, I see no inconvenience in driving there; then without getting off to turn down or attach the finger-bar, he drops the lever, throws the machine into gear, which is done with perfect ease, and starts into the grass. The reaper attachment, which perhaps requires five minutes to apply, is a perfect thing, laying the grain in gavels all ready for binding. I was induced to try a mowing machine the past season on the Essex County Agricultural Farm, and having travelled much in the West, and seen many different patterns of mowing and reaping machines, I was convinced that the Manny patent had as few objections as any I had seen operate. I selected the one-horse mower, and have tested it thoroughly, and have repeatedly witnessed the operation of the two-horse machine. They both give entire satisfaction, and I should use them in preference to any I have seen, but I would earnestly recommend to farmers the buying of a mowing machine of some kind. NATHAN W. BROWN.

*Topsfield, April 2, 1860.*

*For the New England Farmer.*

### AN EARLY HARDY GRAPE.

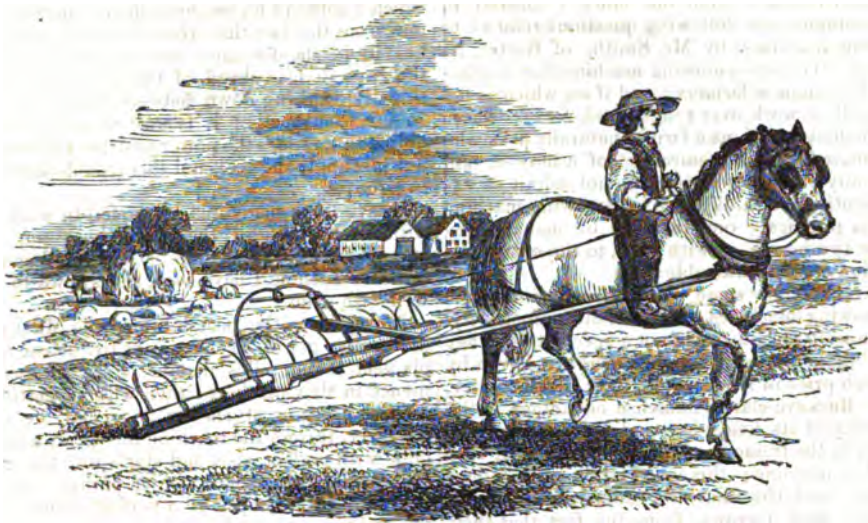
MR. EDITOR:—I have several times, within a year or two, seen inquiries for some early variety of grape that will ripen well in Vermont and New Hampshire, and for the information of such, I would say that there is a grape that originated at Hanover, N. H., that ripens in that vicinity in September. I know that it was dead ripe the first week in October. The grape is small; bunch very compact, and hangs on the vine well. The quality of the fruit is equal to the Isabella, and it is of that kind of grape. I have never fruited it myself, as my vine set fruit last year, but was frozen and killed in June, and did not make much wood. I have raised but few vines from it, and have not more than eight or ten small ones.

JOSEPH PNEO, of Hanover, would probably give any information about it, and may have the vines for sale, as I had my vine from him. I think the original vine was taken from under a Catawba vine in the gardens of Prof. Haddock; and supposed to be of that variety at that time.

*Pelham, N. H., 1860.*

B. F. CUTTER.

OLD men's lives are lengthened shadows; the evening sun falls coldly on the earth, but the shadows all point to the morning.



#### BRADLEY'S REVOLVING HORSE RAKE.

No rake, we believe, has yet been constructed that rakes so clean, and that resists wear and tear so well, including rocks, stumps and ditches, as the spring tooth. It is rare that one of the teeth breaks, or that it gets out of order in any way. But as it has been constructed, it is a severe labor for both man and horse to work it. In leaving the winrow, the whole weight of the rake must be lifted high enough to drop the hay, and even this at the great disadvantage of doing it *at arms' length*! There is nothing attached to them to keep the teeth up from the ground, so that the operation is almost as much that of harrowing as of raking.

The rake represented above is calculated to obviate some of these difficulties. It has what are termed "Iron Runners," or foot pieces, upon which the rake rests, and which are so arranged as to keep the teeth at a proper distance from the ground, which must materially lessen the draft, and prevent the raking in of dirt, old fog, or after-grass. Instead of lifting it up, as in the old one, when the hay is to be discharged, by lightly pushing a small lever, the rake instantly leaves its load and, revolving upon its iron runners, comes into place again. It will be seen by the engraving that any smart boy large enough to ride and guide a horse, can do the raking—for all that is required is to pull upon a string leading to the lever already mentioned, when the rake leaves its load and revolves into place.

We have tried the rake by spreading out hay for the purpose, and feel willing to say that it is undoubtedly a great improvement over the old

spring tooth, and may prove better than any other rake we have used. It will be harder to operate than the Delano, but not half as likely to get out of order. Persons interested may learn more in relation to it by referring to our advertising columns.

#### TO RAISE PUMPKINS.

I wish to know, through the *Farmer*, the best way to raise pumpkins, whether to plant among corn or not. A YOUNG FARMER.

It is a common and successful practice, among all Yankee farmers, to plant pumpkin seed among their corn and potatoes at the first hoeing. Some plant at the same time as the corn. This course, when the soil is rich and mellow gives a tolerable crop of pumpkins, without any considerable addition of labor, but we do not consider it as profitable as to devote a piece of land exclusively to pumpkins. One kind of crop at a time, thoroughly worked, we have found, as a general thing, to prove most profitable.

Pumpkins, planted in hills, three seeds in a hill, and hills eight feet apart each way, the vines stopped in by pinching off the end when they have grown six or eight feet, will give an immense yield, and of a quality superior to those grown among corn. The soil should be loamy, rich, or with plenty of well-rotted manure, thoroughly mixed in the whole field, and the hills should be as nearly level with the surface of the land as possible.—*Ohio Farmer*.

It is easier to increase our wants, be it ever so much, than to reduce them, be it ever so little.

OUT of good men choose acquaintances; out of acquaintances, friends.

### FLAX AND CRANBERRIES.

Culture of Flax—Terra Culture—Cranberry Meadow—Chinese Sugar Cane—Mangold Wurtzel.

Our correspondent from Orleans county, Vermont, asks us the following questions, to which we respond with pleasure.

Can flax be made a profitable crop as far north as forty-five degrees? What is the best time for sowing the seed? What soil is best for its growth? The best manner of preparing the ground? Other directions for gathering and whipping the seed, and preparing the straw for mill, &c.

*Flax.*—The general neglect to cultivate flax in New England, would seem to be pretty good evidence that other crops are more profitable. This crop can be grown, however, in perfection, we think, in any of the New England States. It requires a strong granite or clay loam, which should be prepared as for corn, though we have never known flax put upon sward land. On drained land, the roots of this plant will strike very deep, so as to withstand pretty severe drought. Sow as soon after the first of May as the ground is warm and in proper condition. The old mode of gathering was by pulling it by hand—a process which most farmers very much dislike. It is left upon the ground until wilted a little, and then tied in small bundles, and stooked in the field. If the weather is favorable, it will be fit to take to the barn in a few days. After remaining in an airy position there for some weeks, the seed is easily thrashed or beaten from the bolls, and then it is taken to a mowing field, and spread thinly upon the grass to go through a rotting process; this requires from ten to twenty-five days, depending much upon the state of the weather. When it has remained so long as to render the pulp, or stem part weak and brittle, it is gathered into large bundles, and stored in the barn. In the sunny days of the last of February and during March, the barn floors of New England were once the scenes of a busy activity in preparing flax for the distaff. It is first passed through the "brake," an instrument having four or five long wooden jaws below, and another set above. The flax is placed on the lower set, and the upper ones brought down upon it, breaking the stem into pieces, which fall out, leaving the long fibre in the hand. When this is done, it is passed to the "swingling board," and struck with a long wooden knife very smoothly polished. The "swingler" occasionally passes it through a "hatchel," which is a group of long, sharply-pointed iron pins; this straightens the fibre, and at the same time takes away some of the fine pieces of the broken stem. In this manner the fibre is reduced to a glossy, delicate appearance, has a very soft and silky touch, and is now ready for the wheel.

A new process has been discovered of "rotting" or "bleaching" flax, so that it is accomplished at a

cheap rate in a few hours, and the fibre made ready to be mixed with wool or cotton, and spun very much as cotton is. It is quite probable that this discovery may introduce the culture of flax among us again.

Can you inform me any thing about "Terra Culture", which I have noticed is advocated as a prevention of the "potato rot," and largely increasing the product of potatoes and other roots?

*Terra Culture.*—This term has been in use for several years in connection with a system of a Mr. RUSSELL COMSTOCK, of Western New York. His theory seems to be, that the part in any plant just at the junction of the root and trunk or stalk, is the *seat of life*; hence, setting a plant too deep or shallow, affects the seat of life, and the plant or tree dies, or is injured. To this theory, he has undoubtedly attached many valuable and well-known facts in cultivation. We know little of it, but do not observe that his theory has met with much favor, though this point does not probably embrace it all.

Is there any cheap and convenient method of Kyanizing cedar stakes, hard wood or tamarack beam poles, &c.?

*Kyanizing Wood.*—Take three parts of chloride of zinc to half a barrel, or about sixteen gallons, of water. Set the poles upright in this liquid, and they will be ready for use in about a week. We learn that stakes prepared in this manner have been used seven or eight summers, and still remain sound.

What would be the best way of preparing a swamp for cranberry culture, where the muck is 10 to 20 feet deep, and tamaracks 20 to 30 feet high are scattered sparsely over the surface? The meadow could be flowed at some expense in digging away the muck at the outlet and filling up with stones and earth so as to make a tight dam. The meadow contains 30 or 40 acres. The muck is not fully decomposed, being of a light color when first dug up.

*Preparing a Swamp for Cranberry Culture.*—In a work of this kind, circumstances will vary so much that we can do little more than give some brief suggestions. If the meadow is partially covered with bushes and trees—and you can afford to wait—all the vegetation may be killed by keeping the land continually flowed for two or three years. If you do not like to wait, cut down the tamaracks and bushes, grub up the hassocks, making the meadow as level as you can, burn the rubbish, and scatter the ashes over the whole surface. If you do not find sand within a foot of the surface, haul on some from a neighboring bank and spread it, no matter if an inch in depth. Then open places, and set the cranberry plants, within eight inches of each other. If they are not set closely so as to take possession of the ground, the grass will do so; the contest between them will not be a long one; the grass will be sure to

beat, and your labor will be lost. Do not attempt to cover too much ground, but finish thoroughly as far as you undertake.

The meadow should not be drained so as to take the water off more than 15 to 18 inches below the surface, and if you can control the water so as to flow at pleasure, do so. But you must observe the effect of the water upon the growth of the plants. If you find them more thrifty on spots a little elevated in various parts of the meadow, it will be good evidence that the water should stand at a lower level all over the meadow. If, on the contrary, they flourish best in low places, then raise the water a little. By attending to these suggestions, and such others as your own observation will bring up, and keeping a clean culture among the plants, you will probably find a handsome profit in the cranberry crop.

Would it be profitable to raise Sugar Cane as a feed for cattle, sheep, &c., where I should have to buy seed every year? Where, and at what price can seed be obtained?

*Chinese Sugar Cane.*—We do not think the Chinese Sugar Cane plant, as feed for cattle, equal to southern corn. Seed at *Nourse & Co.'s*, 34 Merchants' Row, at eight cents a pound.

Where, and at what price can "mangold wurtzel" seed be obtained? What soil is best, and manner of manuring and preparing, &c.?

*Mangold Wurtzel.*—Seed as above, at 50 cents a pound. Put them on good corn land. Make a wide furrow, manure liberally in it, cover with earth, and sow the seed about half an inch deep.

*For the New England Farmer.*

#### VERMONT FARMING—A SUGGESTION.

Farmers here, what there is left of them, are cultivating skim-milk farms, and if they go on in this course, many years longer, they will all have to leave for the West, and let Nature take her course.

Let me suggest to you one experiment. I have bought one of these skim-milk farms. What is the use of two hands working on this land that produces only 500 lbs. of hay to the acre, and when cultivated, crops in proportion? The land is naturally good, and produced large crops for a great many years after it was first opened. Hay here is worth \$18 to \$20 per ton. I have 30 to 40 acres of good warm loam land, free of stone, that does not produce over seven tons of hay, and other crops in proportion. 30 acres of this land ought to produce 50 tons of hay, and the other 10, 100 bushels corn, 500 do. potatoes, 100 do. wheat and barley, 200 do. oats, besides carrots and turnips. How is this to be done? Shall I operate as Nature does, and be 30 years about it? The means of making manure on such a farm are small. With such crops my plan is for you or some of your good Boston friends to send me some of the best fertilizers you have; guano, bone dust, lime and plaster, refuse salt, &c.; say \$100 worth, and

some of your best varieties of potatoes, corn, wheat, oats, carrot and turnip seed; and as a return for it, I will plant for you one acre of potatoes, and manure according to your direction, and barrel up all fit for the market, and forward them to your order, for which you will allow me all you can afford to, after deducting expenses, and continue to do so every year until the debt is paid. This will enable me to farm it with some profit, as after one or two years, I could bring up the rear with good solid barn-yard and cellar manures, and the land would need no more, or other stimulus.

The soil here is warm hill land; natural growth, pine, hemlock, beech, birch, rock maple and oak; abundance of springs and brooks of pure water; some clay in the soil; guano is said to do well.

If you want any other security than my word, you can have it.

N. W.

*Royalston, April, 1860.*

REMARKS.—Here is a chance for a change of commodities, and a profit. Who among our enterprising produce dealers will improve it?

*For the New England Farmer.*

#### CARROTS, PARSNIPS AND CABBAGES,

Grown without the use of Hand Tools.

Some months since I promised to give you the result of my experiments in growing roots with the aid of horse tools alone in their cultivation, but have been prevented from doing so until the present time, having harvested the parsnips last week.

The ground upon which the experiment was tried, was a heavy clay loam, in very low tilth, too low, in fact, to produce more than one ton of hay per acre. The method of cultivation was as follows:

The ground was plowed fourteen inches deep and harrowed sufficiently to level down the ridges, the manure was then spread and cultivated in; after properly fitting the seed, it was sown by a machine in drills twenty inches apart; they were then left until the roots were four to six inches in length, when the Mapes subsoil plow was run between the rows twelve inches deep; this plow, or *lifter*, raises the whole ground, and leaves it light, friable, and as porous as though it had been passed through a sieve; all weeds in the line of the row that were above the tops of the crop were then pulled up by taking hold of their tops, as the subsoil plow left the ground so well disintegrated that they offered but little resistance; the Knox horse-hoe, or carrot-weeder, was then run between the rows; this is a light implement, easily thrown from side to side, and can be run safely and accurately within an inch of the rows, and does its work so well that the hand hoe may be entirely dispensed with. When the roots are but eight inches long, the subsoil plow should be run through again twelve inches deep, and if the weeds are troublesome, run the horse hoe again, as the cost is but light, and it improves the mechanical condition of the soil very materially; in harvesting the crop, the subsoil plow is run close to the rows, which assists very much in the pulling.

My product was at the rate of 960 bushels per

acre of carrots, 720 bushels of parsnips, the latter being sowed the second time, owing to poor seed.

Here, Mr. Editor, is a method for cultivating these crops, which, I think, should commend itself to the farmer; it is simple; it avoids all that back-breaking and finger-benumbing process which has been the great bugbear in the way of these crops heretofore; it allows of a large yield with a small amount of manure, as land in a high mechanical condition, with little manure, will produce larger crops than it can with a large quantity of manure in a low mechanical condition; by it a crop may be cultivated from one-third to one-half the cost that it can be by the old method, and it is not open to the very common objection which follows many of our improvements, viz., the great cost of the implements, as the whole set are furnished by Nourse, Mason & Co. for something like \$25, a sum which may be saved yearly, if used in the cultivation of one-half acre.

Although I consider the mowing machine very valuable as a labor-saving implement, still it appears to me that this gang cultivator for the getting in of manure, the one horse subsoil plow for disintegrating and pulverizing the soil, together with the horse hoe as a weeding machine, constitute a set of implements of far greater value and importance; with them we may make the carrot and parsnip what the turnip and mangold have been to England, "the basis of all good husbandry," and without them, or their equivalent, the root crop can be of little value to us, as the high cost of our hand labor does not admit of their being grown at saving prices. C. H. WATERS.

Groton, April 20, 1860.

For the New England Farmer.

#### FERTILIZERS.

As there seems to be a great rage for concentrated manures and fertilizers at the present time, I thought I would mention another kind which I think is as good as any, and is also handy and convenient to almost every one. The kind to which I refer is wheat bran. Perhaps it is used more extensively than I am aware of, but I have never read of it in any of the agricultural papers. I think it is well worth a trial, and every one should know of it. I have tried it only for corn, and think it is not well adapted for potatoes. But it may be good for some other crops. It requires only a small handful to each hill.

My method is to mark out the rows, and then drop the requisite quantity in each hill, and after, as you go along to drop the corn, kick a little dirt on, enough to keep the corn from coming in contact with the bran, as it is believed that the fermentation is injurious to the early stages of vegetation.

Those that try it, please note the result, and report.

J. S. S.

Vermont, April 12, 1860.

**TO PREVENT DOGS FROM GOING MAD.**—Mix a small portion of the flour of sulphur with their food or drink, through the spring months. This is practiced in Europe to prevent the disease from breaking out among the packs of hounds which belong to the English noblemen, and is said to be a certain preventive.

For the New England Farmer.

#### POTATO ROT AND BLIGHT.

**MR. EDITOR:**—In your paper of March 3d, Mr. Goldsbury, of Warwick, asks "What is the cause of the Potato Rot," saying, "It is believed the real cause of the rot still remains unknown and undecided." "That insects are not the cause, but he regards them the consequence of disease." Must we believe these unqualified words without substantial authority attached? They are vague generalities without evidence. Mr. Goldsbury also advances seven reasons against insect depredations and injury to the plant and potato. They contain more of theoretical hypothesis than results of actual research and examination, microscopically and otherwise. He does not know positively, whether there were insects or not on the roots of the potato plants in Warwick. It is a fact that *larva insects* do attack the potato plant at the roots. Their eggs are also found in the undecayed potatoes. These eggs are planted with the seed, and finally, the insects subsist, sutorially, upon the plant. The following certificates establish these facts:

[\*Copy.]

*Certificate of the Committee on Agriculture of the House of Representatives, and other members of the House.*

We have recently witnessed the Microscopic exhibition of the Hon. Lyman Reed, of Baltimore, relative to his discovery of the potato disease, by which it would appear the vital parts of the roots of the vines are attacked by insects. A personal examination of tubers planted this year, and of those unplanted, reveals visible punctures in the skin where the eggs appear to be deposited and hibernated. So far as we can judge, we believe from these punctures in the seed come insects to draw their early sustenance from the lower vital joint of the vine, which thus poisoned and enfeebled, prematurely decays—transmitting to the young tubers disease which finally reaches the heart of the full grown tuber. We feel convinced that a new and important discovery has been made, and, if, as Mr. Reed asserts, he has also found an infallible remedy, the discovery is invaluable, and ought in some way to be made available to the country.

Signed,

Rich'd Mott, Ohio.  
J. S. Morrill, Va.  
J. L. Gillis, Pa.  
John Huyler, N. J.  
J. B. Foley, Ind.  
Guy M. Byran, Texas.  
W. H. Kelsey, N. Y.  
L. W. Hall, Ohio.  
Of the House Committee on Agriculture.

WASHINGTON, MAY 31, 1858.

I. Washburn, Jr., Maine.  
C. B. Cochran, N. Y.  
F. H. Morse, Maine.  
C. B. Hoard, N. Y.  
E. F. Walton, Vt.  
Schuyler Colfax, Ind.  
F. Bliss, Ohio.  
Chas. J. Gilman, Maine.  
N. B. Durfee, R. I.

[Copy.]

TO WHOM IT MAY CONCERN.

*Be it known*, That I have this day made an examination of the specimens of potatoes submitted to me by the Hon. Lyman Reed, with the Spencer microscope belonging to the Smithsonian Institute, and that I have plainly seen on the epidermis and on the sprouts, numerous small insects, and have also seen their eggs in cavities of the epidermis. L. F. FORTALESE.

Washington, D. C., June 19th, 1858.

[\*Copy.]

TO WHOM IT MAY CONCERN.

*Be it known*, That I, Charles L. Flint, of the city of Boston, county of Suffolk, State of Massachusetts, hereby certify that a bottle marked "Specimen No. 9, Nov. 7, Lyman Reed," containing one potato, forwarded by Lyman Reed from Baltimore, Nov. 7, 1857, was received by me as Secretary of the Massachusetts Board of Agriculture shortly after the above date, and since its receipt the bottle and tuber therein have been kept in the room of the Board of Agriculture in the State House. I have recently witnessed a microscopic examination of the tuber contained in said bottle and saw minute insects upon the same. In witness whereof, I have this 26th day of June, eighteen hundred and fifty-eight, subscribed my name.

[Signed,]

CHARLES L. FLINT.

Sec'y Massachusetts Board of Agriculture.

[\*Original in U. S. Patent Office.]

Mr. Goldsbury, though sceptical, cannot by hypothetical theories and arguments refute ocular facts. Seventeen members of Congress have carefully investigated, with microscopes and otherwise, and "believe the lower joint of the vine poisoned by insects, and thus the tubes are dis-



eased." The Smithsonian Institute and Secretary Flint, by microscopic examination, have seen the insects. The U. S. Patent Office, by long and rigid microscopic and other examinations, acknowledge the fact; and Judges, composing the "Board of Appeals," confirm all by their Report to Commissioner of Patents. This I consider a conclusive answer to Mr. Goldsbury's seven reasons. I must respectfully question Mr. Goldsbury's assertion that "Insects are the consequence of the disease." I ask him to cite the authority to establish the fact. I maintain that the question as to the predisposing cause of the blight and rot is not "unknown." Mr. Goldsbury frankly admits his ignorance touching "microscopic" researches, not having "glasses to look through." Which authority will be the most reliable for farmers, Mr. Goldsbury's individual opinion, without "looking through the microscopic glasses," or the opinion of seventeen National Representatives? They devoted a day in the Agricultural Committee-Room of the Capitol to examination. They had numerous specimens fresh from the field, also specimens in glass jars and boxes, with microscopes to place before them ocular facts. They finally declare that there has been revealed to them "A new and important discovery."

LYMAN REED.

Baltimore, Md., April 14, 1860.

*For the New England Farmer.*

#### LIQUID MANURES.

BY JUDGE FRENCH.

A large proportion of the grain and flesh produced in any country is consumed in cities and towns, and is lost in the sea and rivers, never returning to enrich the soil. Baron Liebig, the great German chemist, is raising his warning voice against this enormous waste of substances which ought to be re-applied to the farm. A scheme is now in progress for collecting the drainage of the city of London, containing more than two millions of people, which is now poured into the Thames, and conveying it back to fertilize the land. This has brought out in English papers many facts of interest to us all, as to the value of the sewage of towns, and of liquid manures in general.

The experience of Mr. Mechi, of Tiptree Hall, England, is familiar to many of our readers. His farm of one hundred and seventy acres is all underlaid with iron pipes, and all the manure is applied to it by means of a steam-engine, which forces it in liquid form over the surface. To render the manure liquid, it is conveyed into a reservoir into which a stream of water flows, and is stirred constantly by a current of air forced in at the bottom.

In this country, we occasionally see arrangements, on a limited scale, for applying liquid manures to the soil. We read, also, of some experiments in irrigation, which give results very satisfactory.

We regard all these efforts with interest, but are inclined to think a careful investigation necessary before concluding as to what we can afford to expend in either operation. In a former paper, we undertook to show that Mr. Mechi's high farming, with our higher prices of labor and lower prices of products, would be ruinous to any farmer in America. We do not say that in market gardens and the like, as much capital may not be profitably worked in this country, but we do say, that American prices substituted for English prices in Mr. Mechi's farm accounts, would change his large balance of profits to a large balance of loss.

The Craigentenny Meadows, watered by the sewage-fluid of the city of Edinburgh, furnish the most noted instance of the effect of liquid manuring. The stories of the grass product of those lands are so large that a modest man hardly dares state the whole truth with regard to them in a public assembly.

We have, however, from reliable sources, the fact that those meadows produce from *seventy to eighty tons* of green grass per acre, annually, which sells at from one hundred twenty-five to one hundred seventy-five dollars. This statement is valuable as showing the possible products of grass land, without regard to expense. If, however, we look at the estimates of the quantity and value of this manure, we shall see that even these famous meadows, in an agricultural aspect, do not pay. The quantity of sewage-liquid applied, per acre, annually, is estimated at nearly ten thousand tons, which does not seem absolutely incredible, when we learn that it is applied at eighteen different times, being 500 tons at each application. This would be equivalent to covering the surface, at each irrigation, with about five inches in depth of the liquid. It is, of course, gradually applied, only so fast as the soil can absorb it.

It is not unusual in New England, that we have a fall of two or three or more inches of rain in twenty-four hours, which is readily absorbed by our fields. The estimated value of the Edinburgh sewage-fluid, as compared by chemical analysis with other manures, is about *four cents per ton*, and the annual application of 10,000 tons is worth about \$400 per acre, or more than twice the value of the crop!

What the *cost* of thus applying it may be, we have no means of estimating. The main object in the arrangement in the sewers of cities, is, of course, to dispose of the surplus filth and water, so as not to injure health and comfort. The use of it for agriculture is a secondary object, and is not, therefore, to be charged with the cost. When, however, we design to convert all our liquid into manures, as Mr. Mechi and others do, merely by way of economical farming, the question is quite



different. In a very able article by Cuthbert W. Johnson, he says that about the quantity used at Edinburgh, 10,000 tons to the acre, is "required" for eighteen irrigations.

We are told, that the sewage of London contains about 1400 pounds of water to one pound of the solid excrements of the inhabitants! If this be so, we should get in each ton of 2240 lbs., a little more than one and a half pounds of the concentrated solid manure, a somewhat homoeopathic dose.

In all the experiments with liquid manures on green crops, we have seen no fair comparison of their effects with those of pure water, and it is difficult to estimate in these investigations with sewage and other liquids, how much is due to the water, and how much to the matters held in solution. We give the above facts and suggestions to attract a more careful attention to the subject.

*For the New England Farmer.*

#### THE SEASONS OF 1859—LATE FROSTS, &c.

The year of 1859 was one of extremes. The winter of 1858-9 was an open one; but little snow fell in this region. The mean of the 1st month was 23.88°. The 2d month was mild, and not so variable as the preceding; mean temperature 26.32°. The 3d month was unusually mild and pleasant, the temperature being 6° above the mean of the corresponding month for the last 18 years, at Toronto, in latitude 43° 39' north.

Plowing was commenced as early as the 12th, on sandy land, yet the roads were, in many places, almost impassable, in consequence of mud. The various spring birds, except swallows, appeared during the second week.

The 4th month was cool and wet, the mean temperature, 40.55°, was but 4½° above that of the preceding month. The frosty nights did great damage to clover, and winter wheat was badly damaged. The 5th month was warm and dry. A fine rain the 9th, changed the face of nature suddenly. The "old dame" immediately donned her vernal robes, and looked as gay as ever. Previous to this time, the forests and orchards had scarcely changed their color, yet as early as the 15th, apple trees began to show their blossoms, and they were in full bloom the 24th and 25th. The 23d and the 31st were cool; mercury fell to 36° each morning.

In the morning of the 23d, the frost played some queer antics. Corn, beans and vines, in my garden, were up, and looked finely. I took the precaution to cover the vines. The corn was not badly injured. In some hills, a blade was killed to the ground, and in some others, one or two were partly killed, while the remainder of the hill was untouched. So with beans; some hills were entirely killed, and those next to them on all sides were not injured. The leaves on one side of a hill were, in some cases, nipped, and one stalk was sometimes killed, while the rest of the hill was intact. Similar freaks were witnessed in other localities. Now, what was the cause? Had the

plants on any considerable spot been entirely killed, or all touched alike, we might reasonably suppose some peculiarity of soil to exist—some element which had the power of absorbing and retaining a greater amount of heat in one spot than in another; but such a theory will not hold good in instances like the foregoing. There is a great deal of mystery in the operations of nature, yet careful observation will make many things plain that are now wrapped in obscurity. I may here say that the soil in this vicinity is generally a clay loam, based upon limestone, the clay predominating, and often mixed with limestone gravel.

Late frosts occasionally visit all parts of the country, doing more or less damage to vegetation, but seldom has the "Ice King" more nearly defeated the hopes of the husbandman, as in the last year. The 5th of the 6th month, a general frost visited Canada and the northern part of the United States. In some locations, crops were severely injured, yet the damage proves to be much less than it was thought to be at the time. In many places the mercury fell to 30°. At this place it fell to 32°. Of course, tender vegetation was destroyed. In some situations, corn was entirely killed, but generally the leaves only were killed, and the stalk continued to grow without material loss. Another frost nearly as heavy occurred in the morning of the 12th. Mercury again fell to 32° at this place, but, fortunately, less damage was done, though the prospect for a crop of corn, beans and potatoes was rather gloomy. The weather became warm, however, soon after this, and vegetation was very rapid.

The 4th of the 7th month, the temperature again fell to 41°, and frost was reported in some localities. After the 7th, hot weather prevailed. From the 4th to the 13th, no rain fell; the surface of the ground became very dry, and vegetation began to suffer for want of water. A fine shower fell the 15th, and it continued showery several days. Crops of all kinds, except grass, suddenly revived, and an abundant harvest was, in due time, gathered.

At noon the 12th, the mercury rose to 90° in the shade at 1, P. M., the 17th, to 91°, and in the P. M. of the 31st, to 81°. Mean temperature of the month 69.51°.

Fair weather prevailed during the 8th month, which was very favorable for harvesting grain, large quantities of which were secured. But little rain fell, and late crops suffered somewhat from drought. The mean temperature of the month was 68.80°.

In the 9th month, cloudy weather prevailed, though but little rain fell. Springs were very low, and many wells failed to supply water, some of which had not been dry in twenty years. In the morning of the 15th, the mercury fell to 29°, and frost was heavy enough to kill corn, and all tender vegetables. It will be seen that corn had but three months and three days to grow, yet the crop was pretty good, and on some farms, very fine. This is an instance of the great rapidity with which crops grow in cool seasons.

From the 19th to the 28th, inclusive, cloudy, with very damp, sultry atmosphere. Mean temperature of the month, 56.92°.

In the 10th month, only five days were mostly clear, yet but very little rain fell. Hard frosts occurred several nights. Ground froze hard in the

morning of the 20th; and the 26th, the temperature fell to 18°. Mean temperature of the month, 43.61°.

The 11th month was variable; dry weather continued until the 9th. Total depth of rain at this place, 2.82 inches. Mean temperature 38°, six degrees above that of the corresponding month of 1858. The 30th was very fine, and farmers were busy plowing.

The 12th month was remarkably cold. The 1st was warm and rainy—colder and snow the 2d, after 5 A. M., and the 3d was extremely cold; 2° below zero at 9 o'clock A. M., having fallen 54° in 36 hours. In the morning of the 29th, it fell to 13° below zero. Mean temperature of the month 17.93°. Depth of rain, 1.7 inches.

The maximum height of the mercury in the year in the shade, was 91°, and the minimum was 26° below zero, showing a range for the year of of 117°.

I have now given the most prominent features of the weather during the year, at this place, which is nearly in latitude 44° north. The extremes of temperature are sometimes farther apart, yet the climate is considered healthy, the labors of the husbandman are generally crowned with abundant harvests. This was particularly the case last year, with the exception of the hay crop, which was uncommonly light, nearly all the clover having been killed in the winter. The large crop of straw compensates in a measure for the deficiency.

L. VARNEY.

*Bloomfield, C. W., 1860.*

#### EXTRACTS AND REPLIES.

##### SEEDING TO GRASS.

I have eight acres of land which I wish to seed to grass as soon as practicable; it was broken up in September, 1858, and manured broadcast with some six cords per acre, cross plowed and planted with corn in 1859. Is it best to sow grass seed with spring grain or seed down after taking off the crop in the fall?

Which is the best grain, oats or barley to sow seed with, and how many bushels of these seeds should be sown per acre?

A CONSTANT READER.

*West Roxbury, April, 1860.*

REMARKS.—You can plant with corn, cultivate flat, that is, make no hills, and after topping the corn in August, sow grass seed, and rake it in. The corn shades and protects the young grass, so that this is a good deal less labor than any other mode. Of course, you will not allow any weeds to grow among the corn.

Barley is better to seed down with than oats, if the land is a warm and gravelly loam. But if a heavy black loam, barley is not suitable. One and a half bushels is all we use per acre, for seed. Most persons use three bushels of oats, per acre; we use two and a half. The poorer the land, the more seed is required.

##### NORFOLK COUNTY TRANSACTIONS.

By the kindness of the chairman of the supervisory committee of Norfolk County, I have been

favoured with a copy of the "Norfolk Transactions" for 1859. I have glanced over and through many of its pages with much interest. Very few, if any, of our State Societies render a better account of their stewardship. While favored with such a President, and such a Secretary, nothing less should be expected.

I have always looked to Norfolk for a model of good works.

ESSEX.

*April, 1860.*

##### SCRATCHES AND WORMS IN HORSES.

In a recent number of the *Farmer*, "M. Varnum," of Candia, wishes to know what will kill worms in horses. I reply, if your horse has worms, give in doses of one pint at a time, linseed oil once a day, for three days, and a perfect cure is warranted.

Much has been said about scratches; my horse has had them badly. I have tried various things, but found no permanent cure, until I pounded glass to a fine powder, and mixed it with sperm oil. By a few applications they were cured.

*Candia, March 12.*

A SUBSCRIBER.

##### TIGHT BARN AND SICK CATTLE.

The remarks of Mr. Adams, in your paper of this morning, on the structure and use of barns for cattle at the present time, are decidedly to the point. More is to be learned from a detail of such practical observations, than from an examination of all the carcasses of all the animals ever slaughtered. What if there be found liquid matter in and about the lungs of the animal, how do farmers know that such matter ought not to be there? Or how do they know the cause of its being there?

P.

*April 28, 1860.*

##### CORN BEER.

Will some of your correspondents inform me how to make good corn beer?

HAY TIME.

*St. Johnsbury, Vt., 1860.*

##### A BIG TURNIP.

Last year I raised an English flat turnip that weighed 15 lbs. and thirteen ounces.

DAVID G. GREEN.

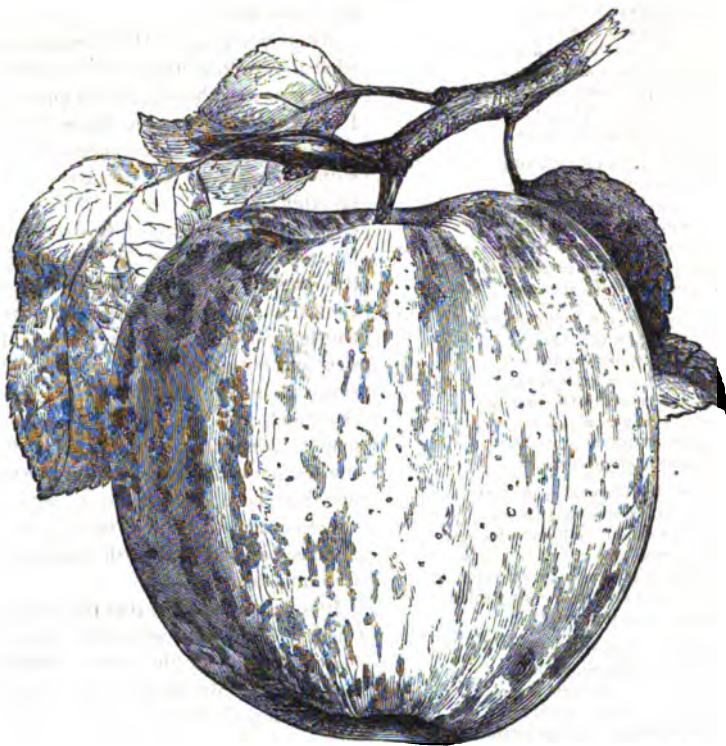
*For the New England Farmer.*

##### HOMOEOPATHIC TREATMENT OF DYS-ENTERY IN COWS.

MR. EDITOR:—A few days ago I had a cow sick, a decided case of dysentery. Her alvine evacuations were thin, slimy, streaked with blood, and very offensive to delicate noses. I gave her in the morning three doses of *aconite*, at intervals of a half hour between doses; one drop of the mother-tincture, diluted in a teaspoonful of water, for each dose. This was followed by two doses of arsenic, same quantity and same interval between doses. Result—in twelve hours the evacuations were greatly improved; the next morning, twenty-four hours from the commencement of the treatment, the cow was perfectly well. During the treatment she was fed lightly with hay, and in the afternoon a quart of oil-meal in a half pailful of water.

MINOT PRATT.

*Concord, May 10, 1860.*



STRIPED PORTER.

The beautiful portrait which we present the reader above, illustrates a new apple to which our attention was called last autumn by our friend and neighbor, W. W. WHEILDON, Esq., of Concord. The description below is also from his pen.

This large and beautiful apple is at once described by the apt comparison of it with the Porter and the Gravenstein; it is almost precisely like the best specimens of the first, in shape, and in marking like the last. Its general form is roundish oblong, but the side of it which is lightest, in color is a little contracted, by slight depressions in the ridges surrounding both the stem and the blossom. Transversely, it only approximates to a circle, being almost distinctly seven squared, tapering like the Porter, at the lower end. In color it is a rich yellow, with red stripes extending over the ridge from the stem, but running down its sides in slashes rather than extended lines. The stem is slender, less than an inch in length, set in a deep, greenish russet cavity. The calyx is set in a saucer-shaped cavity of medium depth, surrounded with fleshy wrinkles. In addition to the stripes and slashes of irregular width and depth of coloring, it is covered all over with fine red and russet specks, of the size of a pin point, and showing most distinctly on the yellow ground, but observable on the red also. It is

subject to dark brown spots like warts. The meat is white, crisp and juicy, something like the Hubbardston, but without its peculiar flavor, and having a flavor akin to the two apples it is said above particularly to resemble. The specimen here described, is probably one of the best to be found in a barrel, and is to be regarded as the type of the fruit in its most perfect growth. It varies considerably in size.

**VALUE OF A LOAD OF HAY.**—I send you a method by which, with but little time and trouble, any one can tell what their load of hay or straw amounts to, by simply taking the weight multiplied by half the price per ton—for example, say 3,300 lbs. hay at \$18 per ton—3,300 lbs. multiplied by half of 18, which is 9, gives the amount—so too with fractions. You may know this, but I can find any amount of men that never heard of it.—F. RUFFNER, in *Country Gentleman*.

**DAIRY—TEMPERATURE OF.**—When the temperature of the dairy is less than fifty degrees Fahrenheit, the milk will not ripen for churning, and in such case should be removed for a time to a temperature of fifty-five degrees. The sudden warming of the milk will not always enable it to yield up its butter readily.—*Working Farmer*.

### SPRING RAIN.

The lark sits high on the walnut tree,  
And if rains, it rains, it rains;  
A jolly philosopher sure is he,  
While it rains, it rains, it rains;  
Blithely he looks at the meadow below,  
Where the nest will be when the grass-blades grow,  
And pour out his song in a liquid flow,  
While it rains, it rains, it rains.

The crocuses put up their little heads,  
While it rains, it rains, it rains;  
And the pink spires spring from their chilly beds,  
While it rains, it rains, it rains;  
The peach blossoms whisper within their cells,  
"We will open our eyes and peep from our bells,  
While it rains, it rains, it rains."

All nature seems happy as happy can be,  
While it rains, it rains, it rains;  
But restless mortals, like you and me,  
While it rains, it rains, it rains,  
Look out of the windows in discontent,  
And wonder why showers to-day are sent,  
Our plans and pleasures to so prevent—  
Why it rains, it rains, it rains!

The lark knows well that God knows best  
The need of the spring-time rains—  
That the summer sunshine will warm his nest,  
After the spring-time rains;  
The grass in the meadow more greenly grow,  
And the corn-blades wave in the valley below,  
After these spring-time rains.

Let us, like him, look cheerily on,  
While it rains, it rains, it rains;  
Waiting with faith till the storm is gone,  
While it rains, it rains, it rains;  
We know that above the cloud 'tis bright,  
And the heavens are shining in beauty bright,  
While it rains, it rains, it rains. *Ohio Farmer.*

### THE CATTLE DISEASE.

*North Brookfield, May 9, 1860.*

GENTLEMEN:—In obedience to a call from the State Board of Agriculture, I turned out this morning at three o'clock, and in company with Dr. JOSEPH REYNOLDS, as a delegate from the Middlesex County Society, came to this place to examine some of the sick cattle, both dead and alive, and to inquire into the present condition of matters in regard to the disease, and the efforts already made, as well as those in contemplation, to stay its further progress.

In order to meet the six o'clock train from Boston, at Framingham, we came across the country fifteen miles by horse power, and in season to get breakfast before the train came along. Arriving at East Brookfield, we took stage, six miles, to North Brookfield, over one of the finest roads I ever saw. At the latter place I found gentlemen from various sections of the State, ready to proceed to an examination, and we were conducted about three miles, to the farm of Mr. B. W. Dean, whose herd consisted of twenty-eight head, every animal of which was pronounced to be infected. Two weeks ago, this herd was examined by the Commissioners, and by skilful medical men who

had given special attention to the symptoms and character of the disease, and it was then thought to be free from it.

After inquiring of Mr. Commissioner WALKER what the leading indications of the disease were, I examined the herd, and felt quite confident that I could select every case where it had made some progress by the appearance of the eye alone, without reference to percussion, or rapidity of breathing.

I found Dr. DADD, of Boston, acting with the Commissioners, aided by Dr. TYLER, of North Brookfield. A cow was driven from the barn, led alongside a deep pit, dispatched, and examined. One lung was found enlarged to double its healthy size, and both had the plainest evidence of disease. A heifer, and then an ox were killed and examined, and in each, the evidence of deeply-seated disease was unmistakable. The Commissioners and visitors then proceeded to other herds that had been condemned, to witness their destruction, and to exhibit the disease in its more advanced stages. But further details on this point are unnecessary.

It is hardly possible that the calves sold by Mr. Chenery could have gone into hands better calculated to spread the disease indefinitely than into those of Mr. Stoddard, as he not only deals in cattle largely, but has teams continually on the road. In removing a building, twenty-three yoke of oxen were used, one yoke of which was diseased, and infected every other ox in the string, and those communicated it to thirteen other herds. While teaming on the road, a pair of Mr. Stoddard's oxen were put up two or three times in the barn of Mr. A. B. Woodis, and his whole herd has been swept away. A Mr. Gilbert had a heifer of Mr. Stoddard, last September, which has quite recently proved a decided case.

The disease presents some singular aspects. In one animal the lungs are greatly enlarged; in another assuming the appearance of liver, or highly discolored, or hardened so as to be nearly solid. In one, a tumor was found weighing more than twenty pounds! In some instances the Commissioners have allowed persons to keep their oxen a week or two, in order to help them out with their spring work. Some of these cattle gained appetite and flesh, but upon opening them, presented tumors on the lungs as large as cocoa-nuts! Up to this time 574 animals have been condemned, and about 400 killed. All trading in cattle has ceased—on many farms no herds graze on the hills, or low in the stalls, and the farmers stand aghast at the spectacle and the prospect. Their farm work is behind, because they have not yet had time to provide themselves with horses; the manure heaps are not accumulating to stimulate future crops; the dairy room will be desolate, and

many families must go half a mile, at least, for the milk for their coffee and tea! The scene is truly a sad one. Fifty head have died of the disease, beside what have been destroyed by order. With the exception of a single case in New Braintree, the Commissioners think the disease is confined within the limits of North Brookfield. But as Mr. C. Stoddard, 2d, sold a portion of his stock by auction, last November, it may break out from those at some new point.

The appropriation by the Legislature was only \$10,000; the Commissioners have already expended \$20,000, and the work is not completed. What is to be done? It must be this. The people all over the State must subscribe a guarantee fund, and this must be done so generally that if the Legislature refuses to cancel the debt—which it will *not* refuse to do—the assessment will fall upon so many as not to become a burden. Without such a fund, the Commissioners will not feel justified in going much further, and thus all that has been done will be lost. We suggest, also, to the several county societies to pledge their bounty to the cause for one year, and to omit the show of neat stock in the next autumnal exhibitions. Decided and substantial measures must be at once adopted, or a calamity will befall the Commonwealth such as it has never yet experienced.

I should be glad to make some further suggestions were not my letter already long, and my heart pained with the sad details of the day. If any entertain doubts or lack sympathy for those suffering, let them witness the scenes we have seen to-day and they will no longer be indifferent or doubting. The Commissioners have gained a high reputation for the energy and fairness they have exhibited. Truly yours,

SIMON BROWN.

MORRIS. NOURSE, EATON & TOLMAN.

*For the New England Farmer.*

#### THE CULTURE OF FLAX.

I noticed in the *Farmer* of Feb. 11th, remarks of S. M. Allen, at a meeting of the Legislative Agricultural Society. I am interested in those discussions. The soil best adapted for the growth of flax is a clay loam. I should prefer clear clay, or marl, to a sandy soil, or a mucky, light, porous soil, as on the latter it will neither give a profitable return in seed or lint. Jonah's gourd was destroyed by a worm, so also is many a piece of flax; also by violent hail storm. To insure against grubs, cut and wire worms, sow on an area of 160 rods of ground, 160 quarts coarse salt, which materially assists the growing crop as regards both seeding and lint.

I admit it is a more sure crop, on the right soil, than wheat, or oats; nevertheless, I have sometimes had a failure, when it was nearly worthless, for the seed, or lint, but in that case not a dead loss, as it then answers a valuable purpose for

feeding stock, and making manure. I think it easier of decomposition than hay or straw, being highly charged with potash, as is evinced by the marked effect it has when spread on grass land, the first shower discoloring the golden hue of the flax fibre, but imparting a most brilliant green tint to the aftermath of grass where it is spread. In short, the various uses to which it can be put are a high recommendation in its favor; viz.: as supplying linseed oil, oil meal for stock, superior for fattening qualities to corn meal, also an excellent article as manure; the lint, if it cannot be cottonized, is wanted for cordage, shoe thread, and various other uses. A volume might be written in favor of flax culture. For seeding for the lint, or fibre, two bushels of seed per acre, but for the seed only, one and a half bushels seed per acre is sufficient. ELISHA FULLER.

*Middlebury, Vt., 1860.*

*For the New England Farmer.*

#### THE CURCULIO.

MR. EDITOR:—You will gratify at least one of your readers by publishing before the curculio season the following report of the remarks of Dr. Fitch, on this insect; being part of his third New Haven Lecture.

In the spring of 1850, I planted an orchard of some 125 apple trees, which I have watched pretty closely, as it is my agricultural pet. The common caterpillar, the ordinary borer, bark lice, &c., troublesome as they are, I have kept in check with comparative ease. But for the curculio I am no match. As the coon said to Davy Crockett, so must I say to this contemptible insect, "If that is you, I'll come right down." Morning after morning I have spread the sheets, caught and killed the bugs by hundreds, gathered and burned the fruit as it fell, and yet at the close of the curculio season scarcely an unmarked specimen was to be found either on the ground or on the trees, while the surface of many of the young apples that still clung to the branches were literally covered with the hacks.

In this my bootless contest with a visible and palpable enemy, that I have seen destroying my fruit, I have been provoked and surprised to hear people account for the late repeated failure of the apple crop by talking about "unfavorable weather in the spring," "a thunder shower when apples were in bloom," or some other fashionable and time-honored excuse.

In the discussion last winter on small fruits by our Legislative Agricultural Society, over which your honor, Mr. Editor, presided, and at which I took much pains to be present, the name of my friend, the curculio, was not even mentioned. And yet even the choice and polished specimens of fruits displayed on the tables of the Massachusetts Horticultural Society have often borne evidence on their cheeks of the unsuccessful hacks of the curculio.

In the published Transactions of the Ohio Pomological Society, I find that the subject of the curculio was forced upon the consideration of the members of this body at their late session at Columbus, by the direct queries of N. Longworth, which elicited "much general conversation," says the report, (p. 25,) but "*no one present was of the*

*opinion that the curculio ever committed any ravages upon the apple."*

Most of my own neighbors are equally oblivious to its ravages—although I find their fruit as badly stung as my own, and many have told me they have never seen the insect, and think me a little radical in my belief that the curculio, for the last several years, has been the cause of the short crops of apples in New England.

In the remarks of Dr. Fitch I find two reasons for hope; first, that an able entomologist has declared the curculio to be "the most injurious insect in our country," and, secondly, that he has discovered a parasite that may check its multiplication.

S. FLETCHER.

Winchester, 1860.

"I think the curculio, or plum-weevil, the most injurious insect in our country. The wheat midge may now produce a greater loss, but I think its career is well nigh ended. The curculio is a native insect of our country. It was at first noticed as destroying the nectarines about Philadelphia, about one hundred years ago, since which it has multiplied, and attacked our apples, plums, cherries and other fruits. From the remedies constantly being published in the papers, we might suppose its entire history was known; but, to this day, we do not surely know where and how it lives during three-fourths of the year. It makes its appearance on the young fruit, when about half grown, and, cutting a crescent-shaped gash, it deposits a single egg, and only a single one, in each plum. This hatches into a small, white worm, which feeds upon the juices of the fruit till it is destroyed, and falls to the ground. It then goes into the ground, undergoes its changes, and in about six weeks comes out again as a beetle. The time when it first makes its appearance varies from the first of April to the middle of May, when it may be found on our apple, cherry, plum, butternut, and other trees. Quite late in the fall, we find them in abundance on the golden rod. When the fruit is large enough, they attack it, and, being decided epicures, select the largest and best specimens. No matter how full a plum tree may be, it will be sure to find every one of them. I think the less productiveness of our apple orchards, now than formerly, due to this insect. About the first of July, inspect the fallen fruit from an apple and plum tree, and you will find both to have perished from the curculio worm. As before remarked, the larva goes into the ground about the first of July, and in a few weeks comes out as a beetle. The question here arises, "Where and upon what do they now feed, as there is no young fruit?" The fact that they come in the spring, weeks before the fruit on which they feed is fit for them; and the fact that they are as abundant after the fruit is gone as before, is good evidence that they breed in other places and feed on other food. The fact is now well established that they breed in those excrescences known as the black knot, on the plum and cherry tree, just as well as in the fruit of these trees. Fifty years ago, Mel-sheimer stated that they breed in the bark of the peach. Four years ago, I found larvæ in the bark of the pear, which I have reason to suppose, were of the curculio. These insects are so abundant and large on the bark of the butternut, as to show that this tree is a favorite abode for them. Now,

as no fruit is found on this tree, like the plum or apple, is it not probable that their eggs are laid in the bark, and that here the larvæ feed, and pass the winter? In my opinion, there are three generations of these pests in a single year, two of which live in the bark of trees, and when the fruit is of proper age, one generation of larvæ feed upon it.

Until within a few months, no parasite had been discovered of the curculio, but last summer, D. W. Beadle sent me some specimens of insects, which I have found to be a parasite to it, and I have called it *Curculio Parasite*. It lays its eggs in the larva, and one insect will destroy one hundred of them. It is greatly to be hoped they will multiply and spread, wherever this pest is found.

*For the New England Farmer.*

#### CALCULATIONS ABOUT CABBAGES.

MR. EDITOR:—During the past year I observed that there was considerable said on the subject of cabbages, and no little relative to that peculiarity of the roots which has various names, and which we will now call club-root. How many causes there may be, either of which will produce this condition of a cabbage crop, I know not. But I will mention one, which is, I think, so certain, that every one who would raise a good cabbage should be aware of it. This is an excessive supply of ammonia in the soil. The free use of night soil, hog manure, where the liquid mixes with the solid, Peruvian guano, &c., all of which contain a large supply of ammonia, is mischievous.

I visited a town in this State, some years since, to deliver an agricultural lecture, when the subject of cabbages came up. A gentleman stated his entire want of success with cabbages in his garden, because of club-roots. After hearing his statements, I ventured the presumption that his garden received a plentiful wash from a hog-pen. He exclaimed, "How could you know anything about that?" It was the fact, and he admitted it. A gentleman that I became acquainted with about a year since, told me that he raised a splendid crop of cabbages in 1858, where he dressed the ground with hog manure, and that he should try it again in 1859. I was satisfied, by inquiring, that the manure had been so washed before use, that its ammonia was mostly gone. I watched last year to behold the result. It was just as I expected, about a failure. I was talking with an intelligent farmer, in the summer of 1856, and he said he expected a great crop of cabbages, for he had dressed the ground with night soil. I predicted failure. It was so. I heard a very successful farmer state in a public meeting that he had freely used Peruvian guano, on every kind of crop, with success. I asked him, "Have you applied guano freely to cabbages, without their being club-rooted?" He answered, I had forgotten. My cabbages were club-rooted, where I made a free use of it. A little proved beneficial."

I might mention other facts, of a similar character; and some which seem to indicate that an excess of carbonic acid in the soil will have the same effect as an excess of ammonia. I set, one summer, twenty-five plants of Globe Savoy, on a square rod, the surface of which, for a foot deep, was made by the thrown up substance



of a white hard pan. I put about half a gill of superphosphate of lime to each plant, watered a few times with soapuds, and no other manure. I had the largest Savoy cabbages that I ever saw.

In 1853, I planted a piece of ground with potatoes, to prepare for cabbages the next year. The ground was dressed that year with lime, ashes and salt. The next year it was dressed about as follows, per acre: twelve loads, or four cords of stable manure, and fifteen bushels of salt, spread broadcast, with eight barrels of ashes. To each plant was applied about one-fourth of a gill of Mapes's superphosphate of lime. The crop was enough to fully satisfy me. COMINGS.

Lee, N. H., 1860.

### THE CATTLE DISEASE.

#### Action of the State Board of Agriculture.

A special meeting of the State Board of Agriculture was held at the State House Tuesday, May 15th, to consider the subject of the pleuro-pneumonia, and to devise some mode of action with reference to the matter. Members were present from every section of the State. Col. WILDER was requested to preside, and on taking the chair announced the business to be in relation to the *cattle disease*, which is assuming an alarming interest. The first vote passed was to dispense with the proposed State Exhibition at Springfield in September next. Dr. LORING, one of the Commissioners, made a statement in regard to the operations of the Commission, and presented the following memorial to the Board:

#### MEMORIAL OF THE COMMISSIONERS.

##### To the Massachusetts Board of Agriculture:

The Commissioners appointed under the act of the Legislature of Massachusetts to extirpate the disease called Pleuro-Pneumonia, now existing in certain towns in the Commonwealth, have been for several weeks endeavoring to accomplish the work assigned them. The difficulties under which they labored in the outset were very great. The disease had existed for many months in the locality to which it had been transplanted. By sales and exchange of animals, it had been scattered abroad throughout a section of country whose chief business is agriculture, and where the isolation of many of the farms rendered it difficult to trace it. The delay incident to legislation, had complicated and extended the trouble. An entire insufficiency of funds appropriated for the purpose check the work of extermination, and the unexpected extent of territory which contained the infection, and through which the Commissioners have been obliged to feel their way, rendered their task perplexing and burdensome to the highest degree. They found, moreover, that beyond a narrow circuit where the disease had done its work of actual destruction, the public mind was not aroused to a sense of the danger. The farmers who were more remote from the early scene of the catastrophe were reposeing in confidence, and were even congratulating themselves upon their safety, while they were daily inviting the incendiary to their own homesteads.—Nothing but a series of facts, established with great labor and delay by the Commissioners, aroused them to a full sense of their danger. And it was not until the certainty of the infection was demonstrated beyond a doubt that they remembered how carelessly they had purchased animals from the original seat of the disease, or had worked their teams in connection with those belonging to a distempered herd, or had fed their cattle in infected stables, or had paused by the roadside to discuss with a neighbor the condition of some sickly creature which was then breathing death into the nostrils of its dumb companions.

The difficulties which existed in the outset have not diminished, as the work has gone on, and its extent has opened. Where there was at first apathy, there is now alarm. The calls to investigate districts where the slightest suspicion rests, are incessant. Discoveries of recent exposure are numerous; and already the Commissioners fear that, in spite of their untiring efforts to pursue every animal that can possibly have carried the disease with him, and to extirpate every vestige of his path, some may have escaped them, and have carried the disease beyond their reach. In addition to this, herds that have been

confined through the winter are now roaming over the pastures, and unless the infection is checked at once, no man can tell the devastation which must attend its course as it goes on from one enclosure to another, eluding the strictest vigilance and defying the most careful investigation.

In spite of all obstacles, the Commissioners have not hesitated to go to the fullest extent of their powers in the discharge of their duty. They have placed an injunction on every suspected herd. They have destroyed all that gave the slightest appearance of disease, from the poor man's single cow, to the large and choice collections of the most extensive farmers. They have explored every spot which has been brought to their notice as having been in any way exposed, and have endeavored to ascertain the limits beyond which it seems impossible that the disease can have progressed.

The central point of the infected district, it is well known, is North Brookfield, the farm of Leonard Stoddard, into which the disease was thoughtlessly and innocently introduced, and from which it has been carelessly allowed to go out. Around this spot the destruction is complete; but few animals, indeed, being left in the unfortunate town. The disease has been discovered in the north, in those parts of New Braintree, Oakham and Rutland lying contiguous to North Brookfield; on the east, in Spencer; on the south, in Brookfield and Sturbridge; and on the west, in West Brookfield, Ware and Warren. It is believed that the precise course and extent of the disease have been explored in each of these towns.

The number of persons whose cattle have been condemned or destroyed, is 75. The number of animals already marked or killed, is 760.

The Commissioners wish they could assure the Board of Agriculture and the community that their work will end here. But they cannot. The fire that is wasting prairie and forest may apparently be quenched for a time; and it is only when, on the distant horizon, its terrific work is painted, and heaven and earth seems all ablaze, that the insidious and appalling power of the elusive element comes home to the heart of its pursuers.

This is not the time nor the place to enter into an investigation of the history and character of the disease—that, it is hoped, may be done hereafter. But it is important that the public should know and appreciate the full extent of the contagion. That the disease is peculiar to itself there can be no doubt whatever. The name, Pleuro-Pneumonia, which has been applied to it, and which in its ordinary acceptation signifies inflammation occupying the pleura and lung at the same time, does not by any means indicate its true character. The inflammatory stage of the disease is hardly perceptible. But throughout the substance of the lungs, and in the membrane covering them and lining the cavity of the chest, there seems to have been diffused a morbid poison, under the influence of which the vitality of the parts is threatened with speedy destruction. The contagion is inevitable. Wherever an animal has been exposed, in that animal the disease is sure to be found. Every creature that went out from Leonard Stoddard's herd carried the malady with him, and imparted it wherever he went. In no case has an animal been examined on account of its history, that the disease has not been found in a greater or less degree. In whatever herd the disease exists, the animal that carried it there can be pointed out, and his exposure traced back to that wretched calf that went from Belmont to North Brookfield. The disease is not epidemic. It is not found except as the result of contagion. It has broken out in no spot without a known and well-authenticated cause. But it passes from animal to animal in its deadly career, marking every victim that comes within its fatal grasp as surely as the water of Tofana or the poison of Brinvilliers.

To keep the plague within its present limits, and to draw a cordon around the infected district, is now the great object of the Commissioners—a work which the nature of the disease renders practicable, and which nothing but public apathy and inaction will prevent. They have only to ask that public sentiment will sustain them in staying the ravages of an enemy which, once allowed to roam unrestrained, would strike a destructive blow at the great industry of our country—that industry upon which we all depend, and whose security from panic and crisis is exemplified by the everlasting hills upon which it rests. Standing upon the high lands of the diseased region, the beholder can cast his eye over miles of beautiful swelling pastures, the richest by far, in our State, where roam thousands of cattle, the solid wealth and active force in the agriculture of an industrious people. The destroyer has laid his hand upon the very heart of his victim. In no section of our State could the consequences of his reign be so disastrous as in that which he now threatens; and in none is the opportunity for his progress so great. The soil sickens at the thought of his escape; for should his sway become supreme, and North and South, East and West, mountain and prairie and savannah, hill and valley, own his sceptre, who can tell the consequences? To say that millions would be lost in a business whose profits are counted by units, to say that fear and despair would take the place of hope and security, is to tell but half the story. For into our very homes, with the nourishment upon which our lives depend, we should daily bring the seeds of disease and decay. Let those who would charge the Commissioners with recklessness of animal life, remember this, and know that when the task of extermination is abandoned in despair, if abandoned it is, a rich and prosperous country is delivered over to a blight and a curse; to the "pestilence which walketh in darkness, and to the destruction which wasteth at noonday."

That this is no exaggerated picture, let the present condition



of the towns and farms already visited by the disease bear witness. Stripped of the vital force which gave existence to their agriculture, they present the sad and mournful picture which nature always spreads over the deserted haunts of men. Farming without cattle—a ship without sails, a mill without machinery, a city without inhabitants, the world without man. Of those held in suspense, too, the condition is scarcely less wretched, with the prospect before them of a constant struggle against disease, in which the expense and risk of cattle husbandry are increased a hundred fold, and the present safety and vigor of health are exchanged for an enfeebled condition.

In discharging their duty, the Commissioners desire the aid and counsel of all those interested in agriculture. With a very few exceptions, they have found the farmers immediately affected by the disease, prompt to act in its suppression, and ready to impart any information necessary to a thorough accomplishment of the work. The advice and sympathy of many of the agricultural societies have been given through their agents, who have visited the spot. Liberal contributions have been made to a guaranty fund, to provide against any delinquency, which it seems impossible should occur in the action of any future Legislature toward compensating the sufferers from this terrible calamity.

It seems proper that, in addition to this, the State Board of Agriculture should make such recommendations as may prevent the progress of the disease, and should sustain the Commissioners by all means in their power. It is highly important that suggestions should be made to the several societies, with regard to suspending their exhibitions of cattle the coming autumn; and that an effort should be made to induce each society to relinquish its annual appropriation from the State, for the purpose of rendering the financial burden as light as possible.

It is for these and other reasons that the Commissioners have called the attention of the Board to the subject, with the assurance that their call will not be in vain, and with the belief that no subject has been brought before them more important in all its bearings, or more entitled to prompt and energetic action.

PAUL LATHROP, }  
AMASA WALKER, } Commissioners.  
Geo. B. LORING, }

North Brookfield, May 15, 1860.

Mr. PETERS, from the Worcester Society, stated that persons remote from the infected districts do not appreciate the nature of the disease, and mentioned several cases where the contagion was conveyed as far back as December 19. He urged immediate and prompt steps; thought Congress should be memorialized, and that members of the Board ought to go and see cases of the disease.

Dr. J. C. BARTLETT, from the North Middlesex Society, said he had not got a clear idea of the nature of the disease from what had been said. If it were contagious, he desired to know why Mr. Chenery's stock had not spread the disease around it?

Dr. LORING replied that the traces of the disease were as clear as fresh tracks upon the snow, and that the reason why the disease had not spread around Mr. Chenery's stock was, that he had kept it entirely secluded, so that no opportunity had been afforded for extending it.

Prof. CLARK, from the Hampshire Society, stated that he had visited North Brookfield, and was satisfied that the danger is imminent. He offered the following resolutions:

*Resolved*, That a Committee of three be appointed from this Board to advise with the Commissioners for the extirpation of the disease called Pleuro-Pneumonia, and to devise with them the most active and efficient mode of carrying out the object of the Commission, and that they make a full report of their doings to the Board.

*Resolved*, That the various agricultural societies be requested to suspend their annual exhibitions of neat cattle the coming autumn.

*Resolved*, That every effort be made to increase the guaranty fund now being secured for the support of the action of the Commissioners; and that each member of the Board be appointed a committee for his society to (select agents to) secure subscriptions to the guaranty fund from every town in the State.

These resolutions were adopted, after some dis-

cussion, the third being amended by authorizing the members of the Board to call public meetings and meetings of their respective Agricultural Societies, as well as to appoint agents to collect subscriptions, and also to take such other measures as they may deem proper.

Mr. SMITH, from the Highland Society, spoke of his visit to the infected district, and of his efforts in various towns to awaken the people to a proper appreciation of the impending calamity.

Mr. SEWALL, of the Norfolk Society, stated what he had seen and heard at North Brookfield, and suggested that a public meeting be held in Boston to aid in securing a large guaranty fund.

Mr. DAVIS, President of the Plymouth Society, inquired whether the Commissioners themselves entertained hope that the disease could be averted, and the reply by one of them was, that under energetic measures it could be.

Mr. FREEMAN WALKER, of North Brookfield, who has given the subject much investigation, stated that the exposure of herds had been very general in all the region of that town, and that sales, exchanges and business transactions had brought a large portion of the stock into circumstances of decided exposure. He, therefore, thought the views of the Commissioners almost too hopeful. The disease is known to exist in fifteen or twenty towns, mostly in Worcester county, and he is of opinion that a guaranty fund of \$150,000 or \$200,000 will be necessary to meet the cost.

In reply to Mr. WALKER, Dr. LORING expressed his belief that present energetic measures would result in arresting the disease. He said the farmers had acted nobly in the matter—that they had come forward and proposed to take a fair proportion of the risk, and only ask the State to share with them the losses they incur. A long discussion ensued in relation to the nature of the disease, and of the best means of extirpating it, and upon the resolutions offered by Prof. CLARK.

In a later stage of the discussion, Mr. FELTON, from the Worcester South Society, stated that on last Friday, May 11, *not a case* of the disease was known to exist in the town of Brookfield, but that to-day, May 15, it is probable that a *hundred cases exist there!*

The committee elected to visit North Brookfield consists of Prof. W. S. CLARK, of Amherst, JOHN BROOKS, of Princeton, and CHARLES C. SEWALL, of Medfield.

Prof. Clark offered the following preamble and resolutions:

*Whereas*, The disease called pleuro-pneumonia, now raging in Worcester County, is unquestionably contagious and generally fatal; and only the most energetic and thorough action can confine it to its present limits, and prevent it from becoming a National calamity; and

Whereas, During the past year this disease has spread from the herd of Windthrop W. Chenery, of Belmont, an importer of cattle from Holland, where it is prevalent to such an extent that several hundred animals are known to have contracted it; and the only means of preventing its ravages is the slaughter of animals which are either diseased or have been exposed to the infection:

Resolved, That this Board communicate at once to the proper authorities at Washington a statement of the facts elicited by the inquiries and examinations of the State Commissioners upon the Cattle Disease, together with a petition that some suitable action be forthwith taken by the General Government to aid in the suppression of this alarming evil, and that an effort be made to secure the passage of a law by Congress, as soon as possible, to cause that all cattle arriving in United States ports be inspected by an officer appointed for the purpose, before such cattle are allowed to be landed, and that all cattle from districts where pleuro-pneumonia is known to exist, be subjected to quarantine.

The above were unanimously adopted, and the Secretary was instructed to forward the action of the Board to Richard S. Fay, a member now in Washington.

After the passage of a resolution of respect for the memory of the late Hon. Benj. V. French, the Board adjourned.

From what has been said to-day by persons from the infected localities, it is quite evident that many new cases have appeared, and that the calamity is being extended over still wider territory.

We have reports of the appearance of the disease in various new sections. It is said that one case occurred in Sandwich—an animal that was bought at Brighton, for beef, being found to be badly affected.

*For the New England Farmer.*

#### PORK AND BEEF SCRAPS AS MANURE.

By pork and beef scraps, I mean the refuse of the manufacturers of lard and tallow, consisting of pressed masses of animal fibrine, commonly known as "cheeses." The value of these scraps as food for hogs and poultry is well known to most farmers; those who have used them for these purposes will tell you that no food will pay so well for equal outlay. The secret of their use is the secret of the success of many poulterers who supply the city market with early chickens. The scraps are prepared for use by first pulverizing them to the requisite degree of fineness, by breaking or grinding, and then softening them in water by simply soaking, or by boiling with corn, meal, beans or other food. Have any of our friends accurately tested their value as a manure? Peruvian guano is now bringing over sixty dollars by the ton, and but few of our artificial fertilizers are afforded at less than forty dollars, while beef scraps can be procured at from thirty to thirty-five dollars, and pork, which, for manure purposes, I am inclined to believe is inferior to beef, at forty dollars. If these scraps are chemically examined—for all manures now pass through the laboratory of the chemist on their way to the farmer—we find nothing in their composition that forbids their economical use as a manure at the above rates. Being a mass of fibrine, gelatine and animal oils, they must be exceedingly rich in nitrogen, that *sine qua non* of invaluable manures, and contain, in a highly concentrated form, the various elements necessary for vegetable growth.

Last spring I procured a small quantity of these scraps with reference to experimenting on them. I selected squashes as the crop, but owing to the effects of a pretty liberal use of fish manure, scattered broadcast and harrowed in, the experiment resulted in nothing satisfactory. About sixty hills were selected and manured with equal values of various kinds of manure, but though the hills were 8 by 14, yet such was the stimulating effects of the fish manure, that the vines formed so impenetrable a net-work, as to set at defiance all attempts to determine the differences of the yield. As far as an appreciation towards the result could be made, the hills manured with the scraps appeared to give results at the least equal to those from the hills treated with various other manures, such as guano, hen manure, stable manure, superphosphate, uncached ashes, &c. Will any of our brother farmers take up this matter, and favor the community with the results of accurate experiments? If such a resource can be made economically available, we shall all be gainers by the knowledge of it. I procured my scraps of Mr. Oscar Foote, North Market Street, Boston, and prepared them by first pulverizing, and then soaking them in water until putrefaction began. I would advise adding a very large quantity of water after putrefaction has somewhat advanced, about a proportion of ten to one, and then after a thorough stirring pouring into muck or some compost. A cob mill would be excellent for pulverizing the scraps, and from their concentrated nature, I infer that they would require to be made very fine to prevent injury to the vegetable rootlet.

JAMES J. H. GREGORY.

Marblehead, Mass., 1860.

TAN BARK FOR POTATOES.—This subject is brought before the farmers of England, by a communication in the *Mark Lane Express*. Mr. R. B. Bamford claims thirty-five years' experience in this matter; and has issued a pamphlet giving his method of using it, which is briefly stated in the following: He does not cut his potatoes for setting, but sets them whole, and the largest he can select. The rows are thirty inches apart, and the potatoes are put nine inches from each other in the row. The land is plowed only eight inches deep, treads the manure firmly in the furrows, puts in the tubers, and covers them in with tan refuse, nine inches deep, instead of earthing up. In this way he reports that in 1857 he raised 675 bushels of potatoes—not a rotten one among them—to the acre, with nothing but waste tan as a covering. This is of great importance, the tan refuse being of little or no value, and if it be put to so important and advantageous a use as in this case, it should be widely known and practiced.

THE TEA PLANT.—The progress of the experiment in acclimatizing the tea plant, so far as heard from, is favorable, and there is reason to believe that it can be grown in the open air, south of the northern line of North Carolina and Tennessee. Eighteen thousand plants have been sent into this southern region, and eight thousand more have been distributed to persons in the northern States owning green-houses, as objects of curiosity.

### WILL THE COAL BEDS LAST?

A writer in the *New York Commercial Advertiser*, a few days since, after presenting some rather startling statistics in regard to the rapid increase in the consumption of coal, went on to draw a lugubrious picture of the results that would ensue if the supply of coal should become exhausted. Steamships would be seen rotting in their docks, the busy hum of manufactories would cease, grass would grow over railway tracks, and the world generally would go back to the "slow-coach" system of a hundred years ago. He seemed to have overlooked the great fact that human invention keeps pace with human necessities, and if the supply of coal should happen ever to give out, its place in the economy of the world would doubtless be supplied by some new and equally efficient agent. The article seems to have had the effect, however, of causing an investigation into the actual carbonaceous resources of our planet, and we are happy to say that the prospect is that there will be an ample supply of coal for all ordinary purposes for the next ten thousand years. Beyond that it is hardly necessary to borrow trouble. Prof. Rogers, in his "Description of the Coal Fields of North America and Great Britain," annexed to the "Government Survey of the Geology of Pennsylvania," makes the following estimate of the quantities of coal in the principal coal fields of the world:

	Tons.
Belgium.....	36,000,000,000
France.....	60,000,000,000
British Islands.....	190,000,000,000
Pennsylvania.....	316,400,000,000
Great Appalachian coal field, (this name is given to the bituminous coal field which extends through parts of Pennsylvania, Ohio, Kentucky, Tennessee and Virginia).....	1,387,500,000,000
Indiana, Illinois and Western Kentucky.....	1,277,500,000,000
Missouri and Arkansas Basin.....	729,000,000,000
All the productive coal fields of N. America.....	4,000,000,000,000

Upon these figures the Philadelphia *Ledger* makes the subjoined calculations:

"It will be seen that at the present rate of consumption, 100,000,000 of tons per annum, the coal fields of Pennsylvania alone would meet the demand for 3164 years. If this consumption were doubled, viz: 200,000,000 tons, the great Appalachian field would meet the strain for 6937 years. If it were quadrupled, viz: 400,000,000, the productive coal fields of North America would suffice for the world's supply for 10,000 years to come. To this we must add the consideration that new coal fields are brought to light as exploration becomes more extensive and exact. Dr. Nordenskiöld, a learned Flemish traveler, who has just returned from a visit to the Arctic regions, announces that he discovered anthracite coal as far north as Spitzbergen. One of the most remarkable features of the coal system of the globe is its liberal distribution over the northern hemisphere, where it is most needed. And it will probably be found in the still unexplored regions of Central and Northern Asia."

**CHEAP NAILS.**—The cheapest nails are not the lowest priced ones. Cut nails made of iron of good quality will outlast such as can be bought at the lowest rates about two to one. Never use nails for siding or shingles that break very easy; and be sure not to allow your carpenter to use nails of very light weight. First rate cut nails of suitable

size may cost twenty-five per cent. more than the poorest and lightest, but in the end they are a hundred per cent. the best. Nails made of poor iron will rust out a great deal quicker than nails made of good tough malleable iron, like that known as old sable.—*Scientific American*.

*For the New England Farmer.*

### REMEDY FOR THE BORER.

DEAR SIR:—Having found the borer to be a great depredator on my fruit and shade trees, such as the apple, plum, locust and the mountain ash, and having resorted to the usual remedies with little success, I concluded to test the virtue of soft soap, and have had universal success. Many of my trees, from four to six inches in diameter, were seriously injured, and some of them entirely girdled and destroyed by this insect. I used this prescription two years ago, last fall, and also in the spring following, and no effects of the borer were discovered on said trees that year. But discovering one tree affected by it the succeeding year, I again applied it, and no new damage has appeared. I neglected, however, to apply it to my small plum, and other trees, or sprouts, which I had saved for transplanting, and both last spring and this, they are rendered useless by its depredations.

These I call decided tests, and the application is easier and more sure than that of boiling water, or of paper or bark, which guards the body, but not the roots of the tree. The soap is reduced by water just so as to follow the paint brush freely, and (the grass or weeds being first removed from the tree) is freely applied to the trunk for the height or two feet, and also to the roots near the body, and two or three brushfuls are generally sufficient. A slight discoloration of the bark succeeds and continues, which, together with the offensive oily and alkaline properties, is very ungrateful to the insect, though not injurious to the tree. It should be applied immediately, in order to destroy the yearly increase of the insect.

Shoreham, Vt., 1860. KITTREDGE HAVEN.

### LOOK OUT FOR THE HENS.

See that the hens are constantly supplied with lime in the form of old mortar, or pounded oyster or clam shells, gravel, bones, and meat. Charcoal is also a valuable article to have about the coop. It is said that cooked food should never be fed to hens or other domestic fowls when the weather is sufficiently cold to freeze it in the crop and destroy them! A person once informed us, that this frequently occurs. We think hens should have a place provided for them that will not freeze the food, even if it is out of their crops. This advice may be useful, however, where fowls have the range of the barn, and no warmer place to go to. In such situations, hens often do very well if they are fed liberally with grain, and once a day with hot, mashed potatoes and meal mixed with scraps. There is no place they like so well as among the hay and straw in the barn, and to pick up the hay

and other seeds about the floor, and around the cattle.

Fowls dislike damp places, and the cellar, though warmer than rooms above, is not so good as a loft would be, where the sun could come in through windows in the roof, and which might be warmed in the coldest weather from a stove below. They require steady attention and care, and when they receive it, will afford as much profit for the outlay as any item of the farm.

## LADIES' DEPARTMENT.

### MAY-BE, NOT FOR YOU?

A connubial little sermon, from the text "Be happy as you are," is thus preached by a contemporary print:

"Wife and mother, are you tired and out of patience with your husband's and your children's demands upon your time and attention? Are you tempted to speak out angry feelings to that faithful, but, perhaps, sometimes heedless or exacting husband of yours? or to scold and fret at those sweet and beautiful ones? Do you groan and say, 'What a fool I was to marry, and leave my father's house, where I lived at ease and in quiet?' Are you, by reason of the care and weariness of body which wifehood and motherhood must bring, forgetful of, and ungrateful for, their comforts and their joys? O! wife and mother, what if a stroke should smite your husband and lay him low? What if your children should be snatched from your arms and from your bosom? What if there were no true, strong heart for you to lean upon? What if there were no soft little innocents to nestle in your bosom, and to love you or receive your love? How would it be with you then? Be patient and kind, dear wife: be unwearying and long-suffering, dear mother; for you know not how long you may have with you your best and dearest treasures—you know not how long you may tarry with them. Let there be nothing for you to remember which will wring your heart with remorse if they leave you alone; let there be nothing for them to remember but sweetness and love unutterable, if you are called to leave them by the way. Be patient, be pitiful, be tender of them all, for death will step sooner or later between them and you. And O! what would you do if you should be doomed to sit solitary and forsaken through years and years? Be happy as you are, even with all your trials; for, believe it, thou wife of a loving and true husband, there is no lot in life so blessed as thine own."

**RESTORING DAMAGED VELVET.**—The *Monitor de la Salud* publishes the following method of restoring velvet to its original condition. It is well known that when velvet has been wet, not only its appearance is spoiled, but it becomes hard and knotty. To restore its original softness, it must be thoroughly damped on the wrong side, and then held over a very hot iron, care being taken not to let it touch the latter. In a short time, the velvet becomes, as it were, new again. The theo-

ry of this is very simple. The heat of the iron evaporates the water through the tissue, and forces the vapor out at the upper side; this vapor passing between the different fibres separates those which adhere together in hard bunches. If the velvet were ironed after damping, an exactly opposite result would be obtained; it is, therefore, necessary that the substance should not come in contact with the heated iron.

### WOMAN'S EMPLOYMENT CHANGED.

Within the course of the last few years, two immense events have changed the lot of European women. Woman has only two grand trades to follow, spinning and sewing. The others (embroidery, flower-making, &c., are hardly worth reckoning. Woman is a spinster, woman is a seamstress. That is her work in all ages; that is her universal history. Well, such is no longer the case: a change has lately taken place. Firstly, flax-spinning by machinery has suppressed the spinster. It is not her wages only, that she has thereby lost, but a whole world of habitudes. The peasant woman used to spin, as she attended to her children and her cookery. She spun at winter evening meetings. She spun as she walked, grazing her cow or her sheep. The seamstress was the workwoman of towns. She worked at home, either continually, or alternating her work with domestic duties. For any important undertaking, this state of things has ceased to exist. In the first place, prisons and convents offered a terrible competition with the isolated workwoman; and now, the sewing machine annihilates her. The increasing employment of these two machines, the cheapness and perfection of their work, will force their products into every market, in spite of every obstacle. There is nothing to be said against the machines, nothing to be done. These grand inventions are, in the end, and in the totality of their effects, a benefit to the human race. But these effects are cruel during the moments of transition.—*Dickens's "All the Year Round."*

**SEWING ON BLACK CLOTH.**—To remedy the difficulty which persons with defective eyes experience when sewing on black cloth at night, the *Scientific American* directs: Pin or baste a strip of white paper on the seam of black cloth to be operated upon, then sew through the paper and cloth, and when the seam is completed the paper may be torn off. The black thread will be distinctly seen on the white paper, and drawing the stitches a little tighter than usual, good work will be produced. This method is well adapted for sewing by machinery as well as by hand.

### THE OLD MAID WITHOUT A DISAPPOINTMENT.

—There is something touching in the lot of a woman who has courageously got over an early disappointment, and who sets herself to do good in her generation, and give her neighbors as much happiness as she can. But although there are old maids whose disappointment is in this noble way, there are other old maids whose disappointment consists in never having had any disappointment to bear; and this is a trial which, at one period of life, is hard to endure, and ought to awaken more sympathy than it does.



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SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F FRENCH, } EDITORS.

#### CALENDAR FOR JULY.

The fields are all alive with sultry noise  
Of labor's sounds and insects' busy joys;  
The reapers o'er their glittering sickles stoop;

\* \* \* \* \*  
Some o'er the rustling scythes go bending on;  
And shockers follow where their toils have gone,  
Heaping the swaths that rustle in the sun.

CLARE'S *Shepherd's Calendar*



**J**ULY has come, and the whole world of wealth is spread out before us in prodigal array.—

What a sense of fulness everything about us has. The old house on the hillside, that has stood out as blank and bald as a flag-staff for six months past, is now hidden from view, or its gable can only be seen through a profusion of trembling foliage. —

"The woods and groves have dark-

ened and thickened into one impervious mass of sober uniform green, and having for a while ceased to exercise the more active functions of the spring, are resting from their labors. \* \* \* In winter, the trees may be supposed to sleep in a state of insensible inactivity, and in spring to be laboring with the flood of new life that is pressing through their veins, and forcing them to perform the offices attached to their existence. But in summer, having reached the middle term of their annual life, they pause in their appointed course, and then, if ever, *taste* the nourishment they take in, and 'enjoy the air they

breath.' And he, who, sitting in summer time beneath the shade of a spreading tree, can see its bare branches fan the soft breeze as it passes, and hear its polished leaves whisper and twitter to each other, like birds at love-making; and yet can feel anything like an assurance that it does *not* enjoy its existence, know little of the tenure by which he holds his own, and still less of that by which he clings to the hope of a future. I do not ask him to make it an article of his *faith* that the flowers feel; but I do ask him, for his own sake, not to make it an article of his faith that they *do not*."

Nothing can be more grateful to the mind than this flush of animated existence—these promises of future crops! How attractive and delightful are the changing hues of the grain-fields. The rye is turning yellow, indicating that its time of ripening is at hand. The wheat and barley are of a dull green, while the oats are whitening, and all are gracefully bending to the summer breeze as it passes over them. "What can be more beautiful to look on, from an eminence, than a great plain, painted all over with the party-colored honors of the early portion of this month, when the all-pervading verdure of the spring has passed away, and before the scorching heats of summer have had time to prevail over the various tints and hues that have taken place."

How stately the trees stand on the lawn or road-side, and how lovingly they have intermingled their branches in the forest, and ever sing in harmony that "the Hand that made them is Divine." The influence of these trees on man is neither small nor unimportant, for without them our climate would probably undergo an entire change. They furnish the soil with that unorganized matter on which alone perfect plants can live, by the decay of leaves, and ultimately by the decay of trunks and branches. So the waters of a country, the rivers and lakes, are necessarily affected by the state of the woods of that



country. These woods must, in all cases, act more or less as a sponge in retaining the water which falls on them; and water must thus be supplied more gradually to the rivers, in countries covered with wood, than in countries which are cleared. The influence of forest scenery in increasing the moisture of the atmosphere, and in preventing a climate from being so hot in summer and so cold in winter, as it would otherwise be, is now well understood. Trees modify both the temperature and moisture of the atmosphere; they are all-important as *shelter*, by checking the force of the wind, as well as being condensers of atmospheric vapor, and affording both man and beast a grateful shade from the scorching rays of the sun.

If trees were taken from the streets, lanes and yards our of New England villages, what equivalent could be introduced to supply their places as objects of usefulness and beauty? What art of man could devise a substitute! What, to meet the scanning eye, or watchful ear! How utterly poor and powerless would all our attainments prove to supply this defect! What traveller, seeking recreation and rest, would take his family to a treeless village! Our people are now appreciating the value of trees, and their influence upon both mind and matter. From some eminence our villages have the appearance of a forest. The smoke curls up from among waving branches, and the church spire looks out from among green leaves, while the tones of the church bell, so familiar to every New England ear, roll away to the hillsides, mellowed and subdued by the blossoms and foliage of our village trees. Bonaparte was once walking upon the terrace at Malmaison, and was deeply affected by hearing the evening bells of Ruel. "If such is their effect upon me," he said, "what must it be with others?"

What son of a New England village ever wandered into the wide world, and forgot his New England church, and minister, and village trees! Some, alas, may have forgotten them for a time, but the impression of them made in youth, can rarely be effaced from the mind. The kind and earnest words of a faithful teacher to the young heart, will bear him in remembrance in all after life, whether in the quiet seclusion of life, or on burning sands, or stormy seas. Thousands in these villages will say with the estimable FULLER, "Our minister *lives* sermons—he is ever as hospitable as his estate will permit, and makes every alms two by his cheerful giving it. He loveth to live in a well repaired house, that he may serve God therein more cheerfully, and lying on his death-bed, he bequeathes to each of his parishioners his precepts and examples for a legacy, and they in requital erect every one a monument for him in their hearts."

We receive many letters from the sons and daughters of New England now residing in the West, but rarely one that does not show a yearning for the hill and stream land of their birth. They seem to say:

"Though not from crowded streets I came,  
Methought 'twas long since I had round me seen  
Such true repose; though not oppressed with grief  
More than time brings to all, I deeply felt  
'Twas a heart-healing land. The country there  
Seemed God's own country, for the use of man  
Intended:       \*       \*       \*       \*       \*  
Woods for his health and pastures for his board."

The thoughtful farmer will pardon us for coming up from the furrows for a few minutes to stay among the trees. He will remember that one is as essential to his prosperity as the other, and that both are the gift of an ever watchful and beneficent Being. We pray him also to ponder well the blessings which come with this hay month, fervid, busy JULY.

#### ROOTS—THEIR EFFECT ON SOILS.

Most plants throw their roots over a great depth in disintegrated subsoils; indeed, where soils are underdrained and subsoil plowed, after their removal they leave in the soil an amount of roots nearly or quite equal to the crop removed, and the portion percolating the subsoil and decaying in place, furnishes new conditions capable of liberating from the subsoil many elements which have been before inert.

The joint action of atmosphere and moisture, together with carbonic acid and other fertilizing gases, all circulating the more freely through passages where roots have decayed, and which by their decay have furnished the necessary ingredients, requires but the action consequent upon the presence of these constituents, assisted by the roots of a living organism, i. e., the next crop, to insure the solution of new quantities of mineral matter from the subsoil. Portions of the mineral matter so liberated, are elevated into the surface-soil, and there deposited, as excrementitious matter thrown off by vegetables, and with the decay of roots thus enrich the surface-soil; and this is also assisted in degree by capillary attraction.

Some have argued that this continual uprising of matter toward the surface-soil, consequent upon the continuous decomposition in the subsoil, must eventually denude the subsoil of its more valuable portions; but it must be remembered that the new conditions produced are such as continually to cause the liberation of new quantities, and that the entire soil being deepened, presents a greater area of surfaces of particles to be acted upon by atmospheric and other influences. To avoid using the material is like husbanding perishable articles until they become worthless.

The roots of a currant crop often extend four or five feet in length. Even the common onion has roots eighteen inches long, the lucern and other clovers by the decay of their roots, percolating deeply into the soil, deposit carbon in place of mineral matter which they take up; part to be returned to the soil by the decay of roots, and

part elevated into the upper soil, while the portion of the crop removed is more nearly renewed by liberating new quantities over greater depths, than if the soil were cultivated on the shallow system.

Every fact, empirical and scientific, goes to prove that deep tillage renders the addition of less quantities of mineral fertilizers adequate to produce crops.—*Working Farmer.*

*For the New England Farmer.*

#### FALSE ESTIMATES—HEN LICE.

MR. EDITOR:—You have often noticed the proneness of men to be looking after, and admiring great things. He who studies the character and habits of the lion, the leopard, or tiger, is engaged in a lofty and honorable pursuit. The king of beasts; who would not be proud of the achievement, could he but slay a single specimen? Who would not consider a place among those gathered to see the noble slain, a place of honor? But the man, can he be a man, who is seen looking after bugs, and flies, and lice, who devotes time to such an insignificant, childish purpose, is viewed by the mass of his fellows as trifling with his existence.

But what, sir, would be his position as a benefactor of his race, who should penetrate every jungle on our globe, and destroy the best lion that has made such his retreat, compared with his who should destroy the wheat-fly, or midge-maker, an insect so small that a score placed in the balance against one hair of the lion's mane, would kick the beam. The roar of the lion may frighten a fine bushman, but the appearance of the fly causes a nation to tremble.

But my subject, when measured by might or bulk, is not the formidable giant, that he may be compared with the fly, the bug, or the flea, but is an animal so small that were you to put a gross of them on the tail of a flea, it would scarcely make it droop, or shorten the length of his jump by a single line. And yet, as the skull-caps of the animalculæ form masses of rocks, as the coral insect builds islands in the ocean, and reefs on its coasts, as moments make the whole cycle of time, so then hen lice, when aggregated, will make an extension, and give a visual angle which the human eye can appreciate; yea, more, will cover the whole surface of the perches on which your hens roost, will fill to overflowing every crack and corner of your henery; will cover you if you go into it, and will bite you, if you have not the skin of a Packadermata, most killingly.

Permit me to give you a little personal experience with these scamps. I had last spring about a dozen hens. Their apartment was in the corner of the barn, was about eleven feet long, four wide, and eight high; enclosed on all sides with matched spruce boards, with a twelve light window in the south side. The floor above was not matched. Within was a box of dry ashes, nest boxes, etc. Report came that the hens were troubled with lice. Without examining at once to determine the extent of the mischief, directions were given to mingle sulphur with their food. Soon it was said that the nests and eggs gave lice to those who went to them. A thorough examination was made; there were more animals on a perch four

feet long, and three inches in diameter, than there are men, women and children on this globe; so we believe; and every part of the room was thoroughly stocked, and yet there were but few to be found on the hens.

Now for war. Bought one pound of sulphur, and four pounds of the leaf stem of tobacco; set in the henery a tub with some water in it as a guard against fire, and in the tub an iron pot with some coals; filled the pot with the tobacco, and sprinkled on the tobacco three or four ounces of sulphur, and shut the door. After this had burnt out, and the fogs had so far disappeared that admission could be gained, we re-filled the pot with tobacco and sulphur, and gave them another dose. This over, the premises were examined. The lice had been warmed up just enough to make them lively. Not even a cough or a sneeze was heard among them. This was, therefore, a failure. The floor above, and all the boxes, and movables within were then removed, and purified by fire, and the room drenched with boiling water oft repeated. This thinned the ranks, but was not effectual. The next step was to add to a thorough use of hot water, a profuse sprinkling with dry ashes, while the walls were yet dripping. This was repeated from time to time for one or two weeks. The victory was complete; harmony being restored both to the henery and the kitchen. Inference No. 1, Never despise small things. Inference No. 2, Let your henery be plastered, and often whitewashed. Inference No. 3, Give your hens from time to time a little sulphur in their food.

REED.

*Pittsfield, Mass., 1859.*

*For the New England Farmer.*

#### THE POTATO ROT.

MR. EDITOR:—There has been no lack of hypotheses, and arguments most ingenious and plausible have been framed in relation to this disease, but the whole subject has been so thoroughly discussed in every aspect and guise that it would seem a vain attempt to seek to search the cause. Professor BOLLMAN, a Russian Councillor of State, has published a work on the prevention of potato rot. He discovered accidentally, and has subsequently verified by experiment the fact, that seed potatoes, thoroughly dried, will produce a sound crop. Mr. Bollman's room in which his first potatoes were dried was heated to about 72°. By way of experiment, he placed others in the chamber of the stove itself, where the thermometer stood at 135°. It has been ascertained that previous to the final decay the specific gravity of the diseased potato becomes one-third more than that of the healthy tuber, on account of the water it contains; when submitted to a dry heat of 200° it loses its moisture, and the progress of decay is retarded, if it be not stopped.

I was conversing with one of our farmers a short time since in relation to potato rot and the drying process. He said for nine years in succession he had practiced cutting off the seed end sometime previous to planting and drying them thoroughly; when ready to plant he dropped from four to seven in a hill, and he has had no rotten potatoes since he adopted this method. He usually plants the early kinds.

J. W.



*For the New England Farmer.*

# LETTER FROM THE SANDWICH ISLANDS.

MAKAWAO MAUI, HAWAIIAN ISLANDS, }  
DECEMBER 27, 1859.

MESSEURS. EDITORS:—*Gentlemen*,—I have not been able to make you out a communication, I find, since February. Let me hasten to speak with you ere the year closes. In my closing paragraphs, I promised you something touching Pele, the once famed goddess of Hawaii, and of her recent doings. Glad am I to say that I have quite recently returned from a tour round that island, in making which I revisited the crater of Kilanea, and looked upon the lava flow as it mingled its burning waters with the waters of the Pacific. I think that I can say something of what I saw on old Hawaii which will interest our friends, the farmers, and others who read your periodicals.

Hawaii is the largest island of the group from which it receives its name, Hawaii, or Hawaii nei, being the true appellation; this island being 88 miles long and 68 broad. Near the end of October of the present year, I landed from a small schooner at Kohala, the north-west district of the island. Some seven miles in a horse cart took us to the station occupied by Rev. Elias Bond, who has occupied the station some sixteen years. He has been an active and successful laborer, and has seen great improvements since he commenced his labors. He has an excellent, well-finished meeting-house, and some seven school-houses, beautiful, though small, structures of wood or stone. These houses will accommodate meetings for conference and prayer during the week. The country is a grazing one, also adapted to the cultivation of corn and vegetables. Mr. Bond has done a great deal for the heathen population around him; many of them now have lands, and are prosperous farmers; all might do well but for their native indolence. I hope you may hear again from this district. From Kohala we rode to Waimea. Our road lay over the Kohala mountains, 6000 feet high, and as we ascended and approached the summit, we came into the region of Irish potatoes, large quantities of which are raised here for the Kawaihae market, fifteen miles distant. Whale ships, after taking wood and water at Kilo, touch at Kawaihae on their way to Lahaina and Honolulu, and purchase their potatoes. Small vessels also take them to Lahaina and Honolulu. I remarked, too, that cattle looked finely in this mountainous region; the feed seemed scanty, but has the reputation of being very sweet and nutritious, more so than the grass at Kohala, which is plenty, but coarse and unsavory. The prospect on reaching the highest land 6000 feet above the sea, and on descending to Waimea, 2000 feet below, was grand. To our left, Mauna Kea, the highest mountain on the island, being nearly 14,000 feet high, towered majestically, showing signs of winter patches of snow remaining near the top. To the right, Hualalai, 9000 feet, reflected the rays of the setting sun, while in the centre, but at a greater distance, Mauna Loa, like a vast dome, stretched upward to nearly the height of Mauna Kea, and nearly spanned the island in regular slopes. But alas! with all its grandeur, the sight was a deeply melancholy one. Before us lay an area of country, say 50 miles by

30, embracing the three huge mountains mentioned above. Between these there was stretched a vast plain dotted with conical hills of various sizes and heights, craters covered with red and black sand and scoria. Through all this plain we saw a single river, and such a stream! Gentlemen, may you never see the like in New England. It was a river of liquid fire, of molten lava, issuing from the sloping side of Mauna Loa. This was apparent by the columns of smoke ascending from the ignited mouths of several craters, and we could easily trace the stream for many miles by the smoke and gases along its course, and by the fresh and shining lava which it had thrown up in its progress. The whole plain seemed a bed of lava—now, acres of slabs of pahoehoe, like a pavement of immense dimensions, and anon, fields of lava thrown into shapes almost innumerable, from large boulders to pebble stones, and from flat and smooth ones to the sharp-like hatchet teeth and needles. Not a river, brook or fountain of water met our eye on all this plain. Nothing but desolation spread over these immense fields. How unlike the view I once had in crossing the Green Mountains from the east to the west side. As I looked down on western Vermont in the town of Chittenden, I think, and saw the forests, the rivers, the cultivated plains, the grazing herds, and habitations of men, I was most pleasantly affected with the goodness of God to my country. You may well be thankful, friends in New England, that you are spared the seeing rivers of fire—thankful that rivers and brooks of sweet water irrigate your plains and make fertile your fields, and that your mountains, even, are covered with forests and other vegetation. True, there are forests at the base and along the sides of the Hawaiian mountains, but the upper parts of them are nothing but lava, ashes and scoria, and Mauna Loa, as you have now seen, is sending out her burning matter in constant streams. More I will tell you of this fearful phenomenon, ere I am through.

On descending to the plains of Waimea I was happy to find some mitigation of the desolate appearance of things as seen from the mountain above. We found a small river or brook near the station of Rev. L. Lyons. It issued from the Kohala side of the island, and irrigated a small portion of land about Waimea. Considerable improvement had been made here since, in 1829, thirty years ago, I visited the place as one of a Committee seeking in behalf of the Mission a health station. Then all was primitive—purely Hawaiian. Now, there is a pleasant meeting-house, two or three stores, and quite a number of dwelling-houses; cattle, sheep and horses were plenty; but I saw but little in the shape of agriculture, and I am sorry to say that the plains of Waimea were covered with a wild and noxious weed which threatens to destroy the hope of the husbandman. Yours, with much esteem,

J. S. GREEN.

P. S. I must tell you more of Waimea lest you think it, like Sodom of old, blighted by the wrath of a holy God. I have given you Waimea only as seen from the high lands which divide it from Kohala. This portion of the district is certainly, as a whole, sufficiently desolate and forbidding, though the climate is cool, and the prospect is

one of the best on the island. Now please go with me to Hamakua, the name of another district belonging to Waimea. Waimea station is about twelve miles from the sea at Kawaihae, and about the same distance from the sea at Waipio, on the north side of the island. We will visit Waipio. The first three miles the road is level, running through a woody land, large scattering ohia trees—a species of oak—the soil light, but thickly covered with the oil or noxious weed, so that it is well nigh impervious to man or beast. We soon began to descend, and found the traveling more difficult. As we approached the valley of Waipio we turned from the beaten path, riding through the wilderness of ferns and coarse, high grass, till we reached the head of the valley some two miles from the sea. The scenery was exceedingly picturesque. We stood nearly opposite a waterfall which only needs a large supply of water to leave your Niagara all in the back ground. The stream is small. It comes down from the high land back of Waimea, quietly wending its way through the woody country till it reaches the precipice of Waimea. Here it takes a leap, a short one at first, one hundred feet perhaps, into a basin formed in the rock; then, after a short pause, comes the final fall, which is said to be nearly or quite two thousand feet;—yes, two thousand feet into the valley. Much of the water goes upward in mist, but it drips from the rocks and joins the water in the stream which runs through the valley, watering numerous kalo patches, and emptying into the sea. Another fall, full as high, was shut from our sight by a projecting precipice, but we could see the stream made by it. The valley is a fruitful one, and has quite a population; is the glory of Waimea, furnishing much provision for less favored places. The people here are making preparation for building a large stone meeting-house, which they propose to christen *Sana Paulo*—St. Paul's.

#### DO ANIMALS CONSUME FOOD IN PROPORTION TO THEIR SIZE?

We suppose that this question will generally receive an affirmative answer. Mr. John Johnson, of New York, whose success in fattening stock has given his opinion on this subject equal authority with his opinion on draining, has recently written some advice to a young farmer on buying and fattening stock, which answers our question in the negative, at least so far as fattening animals are concerned. He says, in an article published in the *Country Gentleman*, that

"It takes no more feed to fat a lot of sheep averaging 140 or 150 pounds, than it does the same number averaging only 85 or 90 pounds; therefore it is more profitable to feed heavy sheep than light ones. It takes no more to fat a steer that weighs 1400 pounds, live weight, than it does to fat one weighing 900 or 1000 pounds, and the largest will always gain the most, with equal feed, if they are of the same age. Then, when fat, the largest are worth more per pound to the butcher; so there is a profit every way in fattening cattle of a good size, according to their age."

In confirmation of this opinion, he adds that he

had heard those whom he regarded as men of practical knowledge, say, that all animals, except man, eat according to their size, and for a long time he believed it, but when he came to feed steers in stalls, some weighing 1000 pounds, some 1500 pounds, and found the largest putting on the most fat and gaining the most in weight, which they would always do, he found those men's theories would not stand the test when tried by practice.

*For the New England Farmer.*

#### FARM FENCES—No. 2.

In my communication of Feb. 21, 1860, I spoke of the absolute necessity of fences, their immense cost, their neglected condition throughout the country, the consequent necessity for improvement in them; and the individual and national benefits which would result from such improvements; also, some objections to the kinds in general use, and also the necessity of calling the attention of sensible and practical men to the subject.

As a general thing, agricultural writers and speakers seldom even allude to it. I do not recollect of reading more than three or four articles in any paper upon the subject, one of which was from the pen of Judge French, upon wire fences, and the others were reports of the discussions at the Farmers' Club of the American Institute where one of the speakers recommended doing without them,—an idea not quite original with him, for, in some parts of the country, immense fields of once fertile and valuable land, by bad management, have been made a barren waste and "turned out" as not worth the cost of fencing. At our agricultural fairs, farms, farm implements and farm-products, horses, oxen, bulls, cows, calves, sheep, hogs, pigs and poultry, hens, so rare, so prolific and so beautiful that a few years ago they would have caused "a fever," corn, oats "peas, beans and barley;" splendid cheeses and immense squashes, big cabbage heads and nice honey; performances, pedestrian, equestrian, and, I had almost said, ridiculous; plows, harrows, cultivators, corn-shellers, mowing machines and patent saw-sage-fillers, steam plows and improved apple parers, all compete for the glittering prizes, and receive commendations of committees and orator, while fences, which, like watchful sentinels, guard and protect them all, and are a more costly production than all put together, are passed by as of little worth, or consequence.

Let State agricultural societies offer liberal premiums for specimens of the best new fences, and, in a few years, we shall see fences much more tasteful, durable and economical upon all well-managed farms, taking the place of those that are now a reproach and burlesque upon the agricultural improvements of the age.

In my remarks, I wish not to be understood as discouraging the building of all the kinds of fences that are in general use; there are cases where stone wall would be a very durable fence, also where it might be expedient to build one of brush or logs, as it is sometimes better to build a log house than any other; but I do wish to be understood as opposing with all earnestness the divid-

ing and subdividing of fields with wall fences, or the building of one wall by the side of another "to get rid of the rocks." A few years since, a farmer in Worcester County, Mass., remarked to a friend, that he had more than 20 miles of wall upon the farm where he lived and an adjoining one! His fields, as I looked upon them from the road, very much resembled in their dimensions, those necessary enclosures we find in almost every town, called the Common Pound. His fences must have cost more than \$6000, and have put many acres of land out of reach of the plow. On some farms, wall fences are built 10 or 12 feet in width, "to get rid of the rocks"—a fence so inconveniently wide that a politician could not possibly stand on *both sides* of it at the same time, with any degree of comfort! Building fences "to get rid of the rocks" is not quite so bad as the Irishman's arithmetic of taking one from two and three remain, but is just about as absurd as his proposal to dig a hole in the earth by the side of another to get the dirt with which to fill it!

But what shall be done with the rocks? Many farmers have yet to learn their value for road-making. Fill all low and wet places any convenient depth with them, putting in the large ones first, then fill the spaces with the small ones, and cover with dirt. Line the banks of streams with them, fill deep gullies, do almost any thing with them rather than build unnecessary fences. Much of this can be done in winter.

In the article upon wire fences written by Judge French, he speaks of "their being invisible at the distance of a few rods," which he seemed to think was a recommendation. I feel reluctant to question anything from one so eminently qualified to instruct in almost every thing pertaining to the prosperity of the farm, not only above but *under* the ground; but my experience is unfavorable to the acknowledgment of this particular merit of the wire fence.

The next day after one was made by a neighbor on his farm adjoining mine, a fine horse which I had turned into the field next to it, having no more regard for territorial rights than some members of Congress, went straight through it, breaking every wire from "turret to foundation." The fence was made of No. 9 wire, 8 wires high, and secured to cedar posts 10 feet apart by spikes driven into them. My sheep, which may be of the "creeper breed," inquired for in the *Farmer* would often creep through between the wires, and sometimes break them. I have but one other objection to make to them beside their "invisibility," which is, that, for general purposes, as they have been built in this section, they are just about good for nothing.

At another time, I may say something of the relative value of different kinds of fences, the quantity of land they cover, and the qualities a good one should possess. "The suggestions as to the best size of fields on farms of fifty, and those of one hundred or more acres," I much prefer should come from some one better qualified to make them.

CHAS. R. SMITH.

*Haverhill, N. H., May 1, 1860.*

**COOKED FOOD FOR HOGS.**—We would refer our readers to our volume II., p. 11, for a letter by Mr. P. Mason, of Somerville, N. J., on the use of

cooked food for hogs. Mr. Mason found that by using cooked corn meal, from the middle of April to the first of December, he increased the weight of two pigs, from about 40 pounds to 602 pounds, being a gain of one and a quarter pounds per day, and that the entire cost of the pork was about four cents per pound. This probably cannot be brought about at so light a cost with uncooked food.—*Working Farmer.*

#### THE OLD FARM-HOUSE.

In a little grove of shade trees  
Stands a farm-house, brown and old,  
With a wealth of vines around it,  
Gemmed with flowers of red and gold;  
By the path that makes a circle  
Of white sand around the lawn,  
Grow sweet Timothy and clover,  
Rosy as a June-day dawn.

Around its door pale morning-glories,  
Jump-up-Johnnies, dahlias, pinks,  
Cluster—concentrated beauties,  
Married by a thousand links;  
Links of love, the works of nature's  
Mystery of handicraft;  
Links of glory, through which  
Argosies of perfume waft.

And the gate that swings before it,  
And the fence as white as snow,  
Stand on variegated cushions,  
Which the sun-fire sets a glow;  
Crowning them with many colors—  
Yellow, purple, green and blue—  
As if rainbow there had fallen,  
Melted into rarest dew.

On its roof the greenest mosses  
Catch the shadows from the trees;  
On its sides red honeysuckles  
Make their curtseys to the breeze;  
And the ever-nervous willows,  
Standing near the garden's bound,  
Throw a web of shade fantastic  
On the clover mantled ground.

O'er the well an arch of grape-vines,  
Formed with heaven's directed care,  
Chains the shadows to the water,  
Making cool the summer air:  
And a tiny church, its steeple  
Piercing through a bower of leaves,  
Is a sure and sacred refuge  
Where the wren her carol weaves.

**THE LATE HON. B. V. FRENCH.**—At the last monthly meeting of the Massachusetts Horticultural Society, after feeling allusion to the decease of many of the original officers and members of the society, Col. WILDER officially announced the death of Mr. FRENCH in eloquent and appropriate terms, and concluding by offering the following resolutions, which were unanimously adopted.

*Resolved*, That in the death of our fellow-associate, the Hon. Benj. V. French, we acknowledge the afflictive dispensation of Providence, in removing from our Society one of its founders and former officers, who for a long course of years sought zealously to promote its well-being and prosperity.

*Therefore be it further resolved*, That in common with all who take a lively interest in rural art and rural happiness, we will ever cherish a grateful

recollection of his devoted and honorable exertions to improve the agriculture and horticulture of our country; and especially of that frankness of character and kindness of heart, which had gained him the confidence and respect of a large circle of friends.

*Resolved*, That these resolutions be entered on the records of the Society, and that a copy of the same be transmitted to the relatives of the deceased as a tribute to his memory.

*For the New England Farmer.*

#### DRAINING AND STUMP EXTRACTING.

MR. EDITOR:—Supposing that farmers would like to hear of actual experiment in this department, I will give my experience. Occupying a central position in my farm lands, was as forbidding a swamp, of about fifteen acres, as can be found in New England, with bushes and bunches of maples growing as thick as they could stand, perched on stumps of a former growth, around which water stood the most of the year. When the water overflowed this, it found its way across a twenty-five acre lot, through an open ditch 1000 feet in length, and emptied upon the surface of a large cedar swamp.

A few years ago, the desire to subdue the swamp first mentioned began to come into action. First, I wanted the geography of the bottom; to get at that, I took a light iron rod, twelve feet long, and creeping in among the thicket, thrust it down where there was an opportunity. In these explorations I found a depression of the bottom, of about two acres, in which my rod would sink its length in the middle. Here was a grand deposit of peat, the muck in the rest of the swamp being thin, generally. To obtain some of this peat deposit, I continued the ditch in the valley, through the bushes, 400 feet, which took off the surface water; then, by clearing away the bushes and stumps, and making a plank road to the shore, I managed to get out 1500 horse-loads, by digging as in clay holes, leaving a dam of undisturbed peat between the cuts.

In the meantime, I was reading the *Farmer*, and there saw Judge French's letters and lamentations, as he travelled about, to see so many places worse than useless, that could be made into the most valuable land by the use of tile drains. By those readings, my mind was opened to see things in a more intelligent light. I then conceived the plan, by laying a drain, of getting clear by one operation of the ugly swamp, getting at the great deposit of peat, which I found was of excellent quality, and making a grand reservoir for sudden floods, and filling the nuisance of a ditch that kept the valley below so cold and wet that no useful thing could grow, besides being in the way of all farm operations. A survey was taken, and it was found that the swamp to be drained was six feet above the cedar swamp, and by digging five feet on an average, one-fourth of a mile, through a concrete of iron, clay and gravel, almost as hard as stone, I should get four feet of peat clear of water. It was a formidable looking job, especially as we had to excavate under a railroad, beneath a culvert, and get almost every inch of earth by hard blows of well sharpened picks.

I ordered 1400 pieces of five inch tile of Messrs. Shedd & Edson, of Boston. In the summer of 1858, I put down 1000 feet, and this last season, put in the remaining 400 feet, to the reservoir

from which the peat had been taken, and which was full of water, holding about 10,000 cubic feet. Having taken proper precaution to protect the pipe from being filled, the last barrier was cut away at five o'clock in the evening, and as the stagnant waters suddenly sprang for the open pipe, I flung my hat into the air, and the half dozen spectators gave three cheers, sympathizing with me, knowing what obstacles I had surmounted in the attainment of so desirable an end. The next morning, I visited the place, to see how much the water had lowered, and to my surprise, it had all gone, and everything appeared as though it had been so for half the night! That is, 10,000 feet of water had gone one-fourth of a mile, in a few hours, through a five inch tile, with a descent of two inches to 100 feet.

Could I have seen the result of actual experiments like the above, before I bought the tile, I should have considered myself well paid in taking the *Farmer* five years, to find it. Next I cut an open ditch through the swamp, above the reservoir, to let out all the surface water, and waited to see the result when the next flood came. It came in September, and it was a flood; the surface of the earth being dry, the water rushed in from the surrounding hills, and filled the reservoir and ditches, bank full. The rain ceased on Sunday afternoon. The next Wednesday morning, all was dry as before. We have had quite a body of snow go off this January, but it made but little gain in the reservoir; so it sums up thus: the drain is a perfect success. The whole cost was about \$200.

Now I have the foundation laid for improving the swamp and upland simultaneously, by carting out the peat to the sandy lands, and making them fertile. Then by having all the small drains converge to where the peat is dug out, I can get a thorough drainage in any direction in the swamp.

While going on with the work of draining, I have also cleared off the bushes from a few acres. The bushes are cut at the most convenient season. August is the time to burn. If the bushes are cut in winter, which is the best time, all things considered, we pass over the fallen brush in August with a scythe, and clip the shoots that grow up through; in a few days they become good kindlings to make the fire run. When it has been dry weather about two weeks, I set fire at one o'clock; at that hour in a clear day a fire will run briskly, and make sure death to most of the bushes.

While approaching the point at which I arrived last fall, I had my eyes open to find in the papers, patent office reports, agricultural fairs, ware-houses, and other places, some machine to pull stumps, that was cheap, portable, and not at all particular what kind of a place it had to stand on. I found windlasses and capstans on frames, with and without wheels and runners, some requiring anchors, some standing on their own work, lifting, as a man would lift himself by his boot-straps; others, twisting, with cattle; all of which may be good in some places, but would not apply to my swamp.

The pictures of these represented them as pulling little stumps from surfaces that appeared like a gentleman's lawn, having no more resemblance in the size of the stumps and condition of my ground, than a farthing candle has to the orb of day. So I set to work, myself. First, I made a

pulling screw, which would take up anything; but, like others, was not practical. Then I got a better idea, and after spending \$300 or \$400 in experimenting, testing and re-constructing, I have got what I was after; a machine that can be handled with perfect ease by three men, stand anywhere, lift vertically, with tremendous power, stumps, rocks, trees with frozen balls, sunken ships, massive castings, or forgings at iron works, or any heavy weights; has no revolving shafts, gears, bolts, or machinery, to get out of order; without friction, requiring no oil, all of iron, weighing less than 300 pounds, excepting the tripod from which it is suspended, when at work in the open field.

What appeared the great obstacle in the way of making the swamp valuable, vanishes, when we have an implement that we can set over stumps that measure from ten to twenty-five feet in diameter, [circumference, Ed.] and hoist them out in a few minutes, without digging, or cutting.

*Kingston, Mass., 1860.* CALEB BATES.

#### EXTRACTS AND REPLIES.

##### BET SUGAR.

Your correspondent, "W. D. L.," New Ipswich, inquires, "Can any one give me the process of manufacturing the juice of the sugar beet into sugar?"

##### Process of Making Beet Sugar.

Grind the beets, put the pulp in a bag, press out the juice, heat the juice to 160 degrees, add cream of lime, stir well. Let the mixture rest a little, then raise the heat to the boiling point. When a scum is formed, stop the boiling, and when the juice becomes clear take off the scum completely, then evaporate as in making maple sugar, skimming off the flaking stuff from time to time. When reduced to a thin syrup, filter through animal charcoal; let there be a coarse cloth strainer placed over a vat or boiler, put the charcoal in the strainer and cover it with another coarse cloth, said strainer to be large enough to hold a given amount of syrup; when filtered, boil down till a brittle thread is formed from a little syrup placed between the thumb and finger; it is then sufficiently concentrated to form sugar.

Cream of lime is made of lime and water; 40 grains of dry lime to one gallon of thin syrup, more or less, as experience may show needful.

Animal charcoal is made of charred bones—not calcined bones.

The juice of beets is very liable to take on fermentation. Sulphite of lime will prevent that.

Full-grown beets will not yield so much sugar as those will do which are a little short of full growth.

A cider mill will do to grind the beets. The residuum may be fed out. The French white sugar beet is preferred.

D. FRASER.

*New Lebanon, N. Y., April, 1860.*

#### THE SECRET OF HAVING GOOD MILK COWS.

I have twenty cows, mostly grade short-horns, all of my own raising. I carry my milk to town every night, and retail it to customers at five cents a quart in summer and six in winter; by so doing I save a great deal of time by being at home mornings. As my pasture is small, I raise a great lot of corn fodder, which I consider the best of green crops for milk. I raise 1000 bushels of mangolds and 500 bushels of carrots yearly, which I feed to my cows at noon each day, giving them chop feed morning and evening, with four quarts of shorts at each feed.

My cows average seven quarts of milk daily for the year. I often hear persons complaining that their cows are doing poorly, but I think the men are mostly to blame, as I am satisfied that a cow cannot give milk on meadow hay and poor attendance.

*Marblehead, Mass., 1860.*

SAMUEL GRAVES.

#### LEGHORN FOWLS.

In reply to your correspondent who asks for a description of Leghorn fowls, I would say that in size and habits they are very much like the Black Spanish. I like them much better than the Black Spanish, for while the latter are good layers only in warm weather, and have dark legs and skin, the Leghorns lay younger, (mine being but four months old when they commenced, and have laid from that time to this without offering to sit,) their legs and skin are yellow, their color white tinged with yellow, except a few which are Dominique or hawk color, with very large single combs and wattles, much larger than the Spanish. I have but eight hens, which average over six eggs a day, which I am selling at one dollar per dozen. They hatch remarkably well and are very hardy. L. R. HEWINS.

*Foxboro', Mass., May, 1860.*

#### BUGGY PEAS.

I once tried an experiment, and to my great satisfaction found out something that I never knew before. Finding an immense number of bugs in some peas that I was about to sow, I thought to ascertain where they came from. So after I had raised a crop from the buggy peas, and as soon as they were ripe, I gathered a phial part full of the aforesaid peas, and corked them up tight so that nothing might get into them. I then placed the phial in safe keeping, and in the course of six or eight weeks examined it and found it swarming with living bugs; then I came to the conclusion that they must have bred in the pea. By opening many of them, bugs would roll out like chickens from eggs, and soon after uncorking the phial they left their place of confinement. Now it remains a mystery to me to know from whence they originated. If you will inform me of the mystery, and give me a remedy so that my peas may not be eaten up by bugs, you will much oblige a querist. For where stones and stumps occupy so much of the soil, it is well that we make every pea count.

L. T. D.

*Green Mountains, Vt., April, 1860.*

REMARKS.—The pea weevil deposits its eggs in the blossom of the pea, where the young grub is hatched, and feeds upon the inside of the pea. Pour boiling water upon the peas before you plant, let them stand in it ten minutes and the bugs will be destroyed.

#### A VALUABLE SALVE.

I was the inventor of the "Golden Salve," which I have used for more than twenty years. I have given a receipt for making it to many of my friends, some of whom are manufacturing it quite extensively. I consider it the best salve or ointment, ever used for man or beast. So valuable a receipt I think I ought to withhold from the public no longer. Many a poor person could make it and sell to their neighbors, who did not choose to make it for themselves.

Linseed Oil.....	2 qts.
Beeswax.....	3 lbs.
Rosin.....	3 lbs.

Heat and stir the articles until well mixed.

*Rutland, Vt., May 3, 1860.*

J. WESTON.

#### HENS AND CHICKENS.

Keeping a few hens for the first time, I thought I would ask advice through your excellent magazine. In regard to the feeding and care of them. I have fed them on outs and what bits are taken from the table. About three times a week I have given them a gill of flaxseed to every six hens, having a lot of it, for which I had no use. My rooster, one of last June's chicks, a black Spanish game, has died. He had no use of his legs for three days; he refused his food, but would drink a large quantity. After death his comb turned to a dark purple. I have a hen of the same breed taken in the same way. If you, or any of your farmer friends, can give me light on this subject, you will greatly oblige

A SOMERVILLE BOY.

P. S. Is linseed oil in small quantities, as above, good for them? and would chicks thrive on it?

THE COMMON MILKWEED.—[*ASCLEPIAS CORNUTI*.]

## TO KEEP POTATOS IN THE CELLAR.

Put them in a pile as deep as you can conveniently. I have for three or four years noticed that where they were deepest they kept the best. Last autumn I put out about one hundred and twenty-five bushels in one bin, and filled them two feet and a half or three feet deep. They have decayed but little, and I found more rotten ones near the top than anywhere else. My potatoes are principally the "Lyman Seedlings," a potato originated and cultivated extensively in this region. They are very good for table use, but little inclined to decay, and yield much better than the average of varieties. They are also good size, larger than the most, and will keep good late in the spring, or I might say until August.

P. W. LYMAN.

Easthampton, Mass., 1860.

REMARKS.—Mr. L. will please accept thanks for the samples of potatoes sent.

## SOUTH DOWN AND LEICESTER SHEEP.

Mr. B. F. KNIGHT, of Derby Line, Vt., we learn has full-bred South Down and Leicester sheep for sale at fair prices. One of his South Down bucks weighs 225 lbs. when in good condition.

## PEACHES.

A correspondent of the *Ohio Cultivator* asserts that the only way to make sure of a crop of peaches every year is by grafting upon the wild plum stock.

The generic name of this plant is derived from the Greek name of *Æsculapius*, to whom the genus is dedicated. This species is called *Cornutus's Asclepias*, or *A. Cornuti*. It bears an other name given it by the great botanist, *Linnaeus*, *Asclepias Syriaca*, who, perhaps, thought it was a Syrian plant; but Dr. *Darlington* says it is exclusively an American species. It is also called **SILKWEED**, on account of the beautiful silky hairs of the seeds, which bear the latter to a long distance, and thus sometimes scatter it over extensive districts. When this plant is wounded, it emits an abundance of thick, milky juice, resembling in both taste and color the juice of the common garden lettuce. Indeed, the milkweed is by some called *Wild Lettuce*, we suppose on account of the resemblance of these juices in the two plants.

The milkweed is not specially obnoxious to the farmer, and is not very difficult to exterminate, unless it has for a long time been allowed to occupy the ground, and get permanently established. It does not take root like the chicory, where it requires two men to pull up a single plant.

In the engraving, the small figure at the right represents a single flower, and that at the left, the seed-bearing pods reduced in size.

For the *New England Farmer*.

## THE SEASON IN IOWA.

It is now a year since we had a drenching rain in Iowa. The springs and streams are very low, and a pinching drought at the opening of the season threatens another year of disappointment and trial to the depressed farmers, and to everybody else. In the spring of 1857 and 1858, we were obliged to pump the superfluous water out of our cellars; now we have little or none in our wells. Many are resorting to the giant ditcher, which has been used successfully in Illinois for seven years. This is a kind of huge plow with a coulter running down five feet into the hard clay, having an enlargement somewhat like a flat-iron at the bottom, which makes a drain five or six inches in diameter, and secures a living stream of water, in low ground, where none had been seen for months before.

Our prospect for a large crop is very good, if we may have but a seasonable rain. A large amount of corn has been put in, and the wheat is

well up, but suffering for want of moisture. The late cold weather killed most of our fruit, the trees being in bloom some two or three weeks earlier than usual.

The emigration is large, this spring; but almost all of it going beyond Iowa, to Pike's Peak, Kansas, &c. The increase of our population from this source will be less, I judge, than for several years past.

The great depression of all kinds of real estate continues without abatement. Very nearly one-half, on an average, property has depreciated within the last three years. But, one good harvest would turn the tide upward again; so we are still hoping and looking for better days.

*Tipton, Ia., May 15, 1860.*

M. K. C.

*For the New England Farmer.*

#### THE NEW ENGLAND FARMER, AND ITS INFLUENCE.

MESSENGERS. EDITORS:—Are we aware of the value of this important paper, and do we prize its worth every week? Is there not four cents' worth of information in each of its numbers, and even more at times? Here we find things needful in every department of manual labor. Says one, "What do editors know in Boston about farming?" But is it not the voice of the country people who have had experience that we hear? It is true that the editors have a chance to see many good things by observation, and give valuable hints which may prove beneficial. What an influence Judge French has had on the subject of drainage. Have not farmers saved by this in one year enough to pay for this valuable paper, by getting his crops in earlier, and more to the acre, than formerly?

*Fertilizers.*—The *Farmer* gives us a history of fertilizers, and their adaptation to our lands. It also gives the market prices of most kinds of produce every week, and a good story for the children, as well as a sermon to those that stay at home on the Sabbath. I can look back twenty-five years, and well remember Judge Buel's *Cultivator*, which was the birth of agricultural papers, and it awakened people to the improvement of the soil and the mind. Now ride through the country, and see how plainly you can tell where there has been an agricultural paper taken; about the farm things look neat and tidy. But, alas, look at the opposite, and you will see the carts and tools left as last used, wood scattered all about, fences down, and trees, and shrubbery, and buildings, going to decay. Now put the *Farmer* into his hands, and get his mind turned, and his trees will bear bountifully, his vines will prosper, and cattle and sheep look up smiling, and repay him in butter, and cheese, and wool. He will have vegetables that he did not once raise, will get his buildings painted, and cause a jubilee among his sons and daughters, and have reason to thank the editors for the peace and harmony they have restored in the old HOMESTEAD.

*Marlboro' Depot, N. H., 1860.*

REMARKS.—We publish the above for a special purpose, notwithstanding it has a little appearance of self-laudation. That special purpose is to correct an impression which seems to prevail with

some of our readers. Our correspondent says: "It is true that the editors have a chance to see many good things by observation, and give valuable hints," &c. Well, we guess they do—but it will not be amiss for us to say that our business is that of a farmer: that is, we, Simon Brown, Editor of the Agricultural Department of the *New England Farmer*, are a farmer, and not only work upon the farm with our eyes and ears, but with our hands, as well as with our tongue and pen! We furthermore find it a pleasant, and health-giving, and money-giving business, and we never felt more like a nobleman in our life, than yesterday, May 22d, 1860, when we stood in our orchard of about five acres, and beheld what had grown up there from the labor of our own hands! What! presume to conduct an agricultural paper, without daily experience on the farm! As well attempt to "make a whistle from a pig's tail." We not only direct the work on the farm, but we say "come," boys, not "go," as far as time and strength will permit,—and we make experiments in grasses, grains, potatoes, garden stuff, fertilizers, and implements, and machines, every year. Beside all this, we go forth with our eyes, ears, and note-book, if necessary, wide open, and calculate to be up in the morning as early as any man ought to be who means to hold out all day! There, we have made a clean breast of the matter, or, in common parlance, have done it up BROWN, and do not intend to refer to the subject again.

#### THE SEASON AND THE CROPS.

After the long and trying drought which had prevailed for months, we had a timely rain last week, and although less than an inch fell, it has had a wonderfully reviving influence upon all the crops. The grass seemed to feel its revivifying influences instantly, assumed a new color, and has since grown with great rapidity. The trees also expanded their leaves and blossoms as though by magic, and now give great promise of an abundant harvest.

There have been two or three frosts in this region, but not so severe as to cause general destruction of young and tender plants.

Spring work has not been interrupted by the wetness of the land, nor by showers or storms, so that the crops were early in the ground, and now only wait the blessing of Heaven, and the watchful care of the husbandman to carry them on to maturity. With the single exception of the impending disease among cattle, everything appears cheerful and prosperous for the farmer.

CRANBERRY PLANTS.—We learn that Mr. JOSEPH L. DANIELS, of Milford, Mass., takes much interest in the culture of the cranberry, and has fine plants for sale.



### THE CATTLE DISEASE CALAMITY.

We do not exaggerate in calling this disease a *calamity*—it has already proved so, and we fear its calamitous effects will not be circumscribed by the limits of Massachusetts. Persons not familiar with the extent of the cattle business in this State, will undoubtedly entertain hopes that the disease may be arrested, long after the hopes of those who are acquainted with this business will have vanished into thin air. The changes that are constantly taking place among cattle are very great, and they transpire in every portion of the State. We know of dealers, who are not butchers, but who own several hundred cattle annually, and these hundreds are mingled with as many more in collecting them, and in driving them back and forth to their places of pasturage. Some of these cattle are sent into the hill towns of the State to be pastured, but the largest portion are sent into New Hampshire, where buying, selling and exchanging is carried on to a greater or less extent every year, both in spring and fall. Thousands are thus sent from Middlesex county annually, so that if the disease does exist in any of the animals sent away, every favorable opportunity is afforded for extending it. Looking at the matter in this light, the cattle dealer, and those best acquainted with the business, will see how prompt and decided must be the work of those clothed with the power to try to arrest it. Indeed, where the opportunities of intermingling cattle are so numerous and so widely extended, and the activity among cattle-dealers is so great, there is probability that all the wisdom and skill of man will be exerted in vain. Still, it is his imperative duty to do everything in his power to stay its fatal march.

The people are now alarmed, and justly so. A calamity is really impending, such as they have never been called to contemplate before—it is already upon them, or needs but a single stride to bring it to their door-ways, and perhaps to sweep every animal from its accustomed stall, leaving the farm desolate and helpless, and its occupants almost in despair. More or less cattle are always sick in the spring, and it is quite common that they have a slight cough: we have heard of several deaths among them within a few days, and have visited many farms where it was feared the fatal disease existed—but for the comfort of our friends, we are able to say that in every case, with a single exception, there were no evidences whatever of the disease known as pleuro-pneumonia. This exception is on the farm of Mr. ANDREW WELLINGTON, of East Lexington, where a single cow, which we saw on Saturday last, exhibited strong symptoms of disease, and some marked ones in common with those of cattle whose lungs we examined after they were slaughtered. A cow

in health breathes some ten or twelve times per minute; this cow breathed from thirty to forty times per minute. The eyes did not show the strong symptoms which prevailed in those we saw at North Brookfield, but they did not appear quite natural and healthy.

The report that the disease had broken out in Seekonk and Pawtucket was erroneous. We have conversed with the person who lost the cow at Pawtucket, and with the physician who examined her, and upon a comparison of the symptoms these gave with those of cattle affected with the pleuro-murrain, they were satisfied that the cow did not die of the disease. And so it will prove of many other rumored cases.

What we understand to be the meaning of pleuro-pneumonia is—that the thin membrane which surrounds the lungs, and called the pleura, and the lungs themselves, are highly inflamed. Human beings have pleuro-pleumonia every day, and this we understand to be the condition in which their lungs are found. But such was not the case in the lungs of the cattle we examined at North Brookfield. Here was little, if any inflammation, but the lungs were enlarged, and the air-cells so filled as to nearly solidify the lungs, so that there was not room for a full inspiration, and the breathing consequently became short and frequent. These cells were not filled with pus, or corrupt matter, but with something more solid and less offensive, but equally fatal.

It is quite certain now that the disease is *highly contagious*; that the most minute particles of tainted matter are thrown from the lungs by the breath of affected animals, and that these particles, or sporules, as they are called, utterly incapable of being seen by the naked eyes, they are so small, will impart the disease to other animals receiving them into their lungs. These particles may be communicated by one animal breathing directly upon another, or they may be lodged upon the stanchions, timbers, floor-way, or even the hay in the barn, and from them be taken off by healthy cattle.

We believe, therefore, that the term *pleuro-pneumonia* does not indicate the disease—but that it is something beside, and vastly worse—that it is a specific malady, a plague that will encompass the whole land unless the most prompt, energetic and thorough measures are taken to prevent it.

Now, what shall be done? Let us suggest. Let the farmer make up his mind to do most of his work, for a few years, at least, with horses, and introduce immediately upon his farm the best breed of sheep he can find. These may prove profitable substitutes in some cases, and in all, perhaps, a partial compensation for the loss of the cattle. The sheep selected should be good mut-

ton sheep, as well as for wool, so as to supply the deficiency in beef; and with the united advantages derived from the sale of wool and mutton, and the reclamation of thousands of acres of exhausted pastures through the agency of sheep, the cattle disease may prove in the sequel to bring some important compensations with it, after all.

At any rate, let us keep up good courage, and exercise daily a bright and earnest faith that all will be well in the end.

*For the New England Farmer.*

#### NEW PLANTS.

The following article was read by MINOT PRATT, before the Concord Farmers' Club, January 5th, 1860.

In attempting to say a few words on the new plants that have been introduced to our notice for cultivation within a few years past, I shall, for the moment, consider all as belonging to that class that were new to me; though very likely some that I shall name may be familiar to those who have had a longer and a wider experience. And in speaking of them, I shall give, in a brief way, my own experience in their culture, leaving others to form their opinion as to whether my conclusions are just or not.

Without further preface, I will begin with the *Chinese Sugar Cane*, a plant that was heralded in with a great flourish of trumpets, as something that was to make every farmer a rich man, and sweeten his toil and his tea with an abundance of cheap sugar, with molasses or syrup enough to do up any other sweetening he might need, besides furnishing for our cattle a cheap, palatable and nutritious fodder. As a class, we farmers are said to be slow to adopt great improvements. Some, perhaps most of us, tried this sugar cane on a small scale. It was introduced some five or six years ago—can any one now give us the statistics of its culture in Concord for the past year? Sanguine, honest men advised its culture on trial; shrewd, speculating men urged us to go into it with a rush—some of these may have had seeds to sell, which they sold at a small advance on cost. Would it be going too far, to suggest that those who bought the seed were also sold? I believe the plain, common sense farmers of New England are now nearly, if not quite, unanimous in the opinion that the *Chinese Sugar cane* is not a valuable addition to the plants now cultivated here. It requires a longer season than can be certainly depended on; and, as a forage plant, it has not been found superior, if even equal, to the varieties of corn usually cultivated for that purpose. It is of slower growth, less luxuriant in leaf, and of harder texture in the stem. Not having made any attempt to manufacture sugar or syrup from it, I am not qualified to speak of it in that connection.

The *Dioscorea Batatas*, or *Chinese Yam*, is another of the new plants that were to work wonders among us. I bought some of the cuttings, paying for them about three or four times their weight in silver. After some pains to start them in pots in the house, the plants were set a good distance apart, in a rich spot, previously trenched

and manured in humble imitation of Capt. Moore's method, piling it on till I thought there was enough, so as to give our new friends enough to eat, and a fair chance to spread. In due time, though not till the weather became decidedly warm, the vines started and grew; not at a speed that made it necessary to step quick to get out of their way; but they grew some three or four feet in the course of the season. Of course, as autumn approached, with this promising crop in prospect, one's slumbers could no longer be troubled with dreams of poverty and hard work; except the hard work of carrying to the cellar the magnificent crop that was soon to be harvested. Visions of the new store room to be built, of the wealth that was sure to come, of the ease that was to be enjoyed, were quite natural, and excusable, even in one whose day-dreams of great success had been usually disappointed. The harvest day so long and impatiently anticipated, at length arrived. With spade in hand I went to work to dig up the yams, beginning at a distance from the plants so as not to injure the roots, and slowly and carefully, partly with hands, and partly with spade, the earth was removed, till at length the long white tuber began to be visible. Then with increased care the soil was scratched away to the depth of nearly two feet, and the whole prize was brought up and laid on the ground to be admired. The yams were all dug in about half an hour, though they did not all come out whole—amounting, as I now remember, to about two pounds in weight. With the assistance of Mr. Pinkham, I have made a nearly accurate calculation of the cost and profit of this crop. Cost of cuttings, \$3, manure 10c, trenching 8c, planting 2c, hoeing 8c, harvesting 5c. Total expense, \$3 33. Value of the crop, estimated at \$20 a ton, 2c, which, deducted from the cost, leaves a loss of \$3 31. Mr. Pinkham decidedly agrees with me, that no farmer can get a living and pay for a farm out of such profits. This little bit of experience almost convinced me that it would be unwise to depend on the profits of unhatched chickens to pay a note at the Concord Bank.

In regard to the possible profitableness of the *Dioscorea*, it is safe to say that the crop must be large in order to make it pay. The labor of harvesting must necessarily be great. The form of the tuber is much like that of a carrot growing upside down. At the same time, its texture is very tender, and a slight pull breaks it, and leaves the big end in the ground. Consequently, you must dig a trench to the depth of 18 to 20 inches, and withal be very careful, or many of the tubers will be broken. With me, each plant produced but a single tuber, running straight down, and as this was the case in every instance during several years' trial, it is probably the habit of the plant.

The *Chufa*, or *Earth Almond*, is another of the new plants I have tried. It was distributed by the Patent Office, and recommended as bidding fair "to become a valuable crop for cattle and swine," and a good substitute for coffee. The plants grew well enough, and produced a large number of small tubers, averaging about the size of a cranberry bean, and of a pleasant flavor; but as they were closely covered with fine fibrous roots, to which the fine dirt adheres, it was difficult to clear them for use, and their culture was discontinued. The quantity grown, about three

half pints, was hardly sufficient to test their value in feeding "swine and cattle."

The *Vetch* was strongly recommended to me by an Irishman some years ago, to be sown with oats, and used as green fodder for milch cows in summer. I procured two quarts of seed, gave the man liberty to select his land, and prepare it to suit himself. The result was a total failure, so far as the Vetches were concerned, very few of them growing more than six inches high. Another Irishman has since said that the soil, a strong, clay loam, and rather cold, was altogether unsuited to the plant—that in Ireland, it is put on dry, gravelly soils. I feel disposed to give it another trial, though very likely the differences of climate will prevent its successful culture here.

*Hungarian Grass, or Millet.*—Several years since I sent to an advertiser in Iowa for a small package of the seeds of this grass. It was said to grow so rapidly, that it would produce two heavy crops of hay, and afterwards mature a crop of seed the same season. I received about a table-spoonful of seed, and sowed it in a row that it might be kept clean, in a good loamy soil, neither light nor heavy, and made rich to give the grass a chance to do the best it could. When it was beginning to head out, a small portion at one end of the row was cut, to test its power to produce a succession of growths. About one-half the plants sent up rather feeble and slender stalks, and ripened seed. The second year I sowed about an eighth of an acre. The crop was small, decidedly inferior to common millet growing by its side. It was eaten with avidity by the cattle, who may be supposed to be good judges of its quality. But after trying it two seasons, I came to the conclusion that my soil was not able to keep the promise of those who introduced the plant. It has been cultivated by others with various success; some finding it a valuable and profitable crop, while the experience of others has been similar to my own.

A few years ago the Patent Office sent out some *Crimson Clover* seeds, a paper of which came into my possession. Though sown in what I have found to be good soil for the common red clover, it sent up only single and small stems, flowering the first year, and dying the winter following. I sowed again the last spring on a dry, gravelly soil; here also the plants shot up and flowered in a small, spindling manner, with every appearance of being an annual, of no value to the farmer.

So far, I have named only those plants that have not succeeded with me. The list might be extended, but I have hardly left room and time to say anything of some valuable ones that have proved equal to their recommendations. Among these, there are several varieties of turnip. The *Orange Jelly*, a round, yellow-fleshed turnip, promises very well. It grows to a good size, keeps well, is tender, and of very fine and delicate flavor. I think no one who has eaten it, will willingly discontinue its cultivation. The *White Strap-Leaf* turnip, a large variety, with large and numerous leaves, more suitable for cattle, has also yielded well, when sown as a second crop among some seed parsnips. The *White Norfolk*, also a large leaved variety, and the *Purple-topped Aberdeen*, have yielded satisfactory crops.

In conclusion, let me express the hope that the failure of some plants, that we experiment upon, may not discourage from the trial in a cautious

manner, of whatever may offer itself to us with good promise. We may meet with frequent disappointments, and few successes. But one real success will counterbalance many failures. A failure here is a temporary affair, a disappointment for the moment only; but the discovery and adoption of a new valuable plant is a perpetual success; it carries its benefits into the far future.

*For the New England Farmer.*

#### FARMERS' HOMES AND CHILDREN.

I have just been reading H. C. Merriam's article on the "Profits of Farming." I like it, because it speaks boldly and freely; let us look the matter fairly in the face, and seek to understand the case in all its various bearings. My experience of farmers and farming is not great, and therefore my opinions are of very small value, and I only hope they may provoke you to write a good article illustrating my points.

Is not the real cause of continued want of pecuniary success on the part of the farmer, the fact that he does not to any great extent put his brain into his work? May not a farmer think and read as much as any human being ought to do? Must he not do so in order to cultivate profitably? And yet how much of their work seems to be done without any forethought. My farming neighbors cart out their manure in the fall and winter, because they have time then, and leave it in straggling heaps on their land, uncovered, for the earth being then frozen, they can't use that to protect it from bleaching, and the deodorizing effects of sun, wind and rain. Now would not that manure, if kept in the barn-cellar until spring, and worked over by hogs, be worth about twice as much, so that they could save half the cost of moving it? Tradesmen, mechanics, merchants, all have to work their heads pretty hard as well as their hands; why should not the rule apply also to the farmer? Can he, by any other means, expect to see his calling raised to the noble dignity of a science?

Is it not generally the case that the boys with the most active intellects grow weary of the farm, and go to the cities, leaving only the slower and more obtuse minds to carry on the farming, and would not this cease to be so if the farmer employed his mind more, and so kept the active mind of the brighter one fully employed? Does not the boy compelled by any circumstances to remain on the farm, accept the doom somewhat as the criminal accepts his sentence—because he can't help it—and do you expect him to make any progress with such feelings? As he follows his plow from year to year, does he not spend more of his time in thinking of the many pleasures and lighter labors of his city brother, than he does in carefully and laboriously considering how to make his farm pay better? I say thinking laboriously, for no good comes of anything short of real labor, whether of hand or brain; light and transient thought will do him little good. In order to be able to think more, he must work his body less severely, and the result of applying his mind to his business will be, more time and ability to think. We must not expect to amend this evil in a moment, but we can, at least, begin at once. Let every farmer do more to induce his brightest

boys to stop on the farm and give them early a few of the superfluous acres that are now idle or half cultivated, which is worse than idle; induce them to plant this land with fruit and other trees, with a view, one day, of having their home upon it, and they will find it hard to leave such pleasant places.

But there is another side to this picture. Let us look at it. Every farmer's son who goes to the city does not turn out an Amos Lawrence; nine out of every ten fail, and ultimately die in hopeless poverty or in debt, which they don't try to pay, because that would deprive them of the means of living easily. How many of them struggle on for years and years on a scanty salary, and die without ever being able to command their own time; and then look at that host of young men in cities who spend their evenings in dram-shops and gambling houses, and their nights in places not to be named. Is it not worth something to escape the strong and often too powerful temptations to such things as these? I think it is within the truth when I say one-fourth of all the young men from the country are drawn in by these terrible vices; they don't all go down in open sight, but how many are scarred all over by their sins, and still live along with a decent show of respectability. Let any city man look back forty years and see how his pathway is strewn with the wrecks of his acquaintances. Now I ask country fathers, and especially country mothers, if they wish their sons to run this great risk for the sake of more money than they really need? If not, then let them make their home so pleasant that they can't be hired to leave it. The temptations to cheat in order to get rich are greater in trade than elsewhere; then let us pause before we place our sons in the way of such strong temptation to coin their souls into dollars, a risk to me as fearful as the others. Let farmers think more and their labors will be lighter—use their brains more and their hands less. X.

#### A VALUABLE PAINT.

For the information of all who are wishing to obtain a cheap and valuable paint for buildings, I would say, take common clay, (the same that our common bricks are made of,) dry, pulverize, and run it through a sieve, and mix with linseed oil. You then have a first rate fire-proof paint, of a delicate drab color. Put on as thick as practicable. If any one has doubts with regard to the above, just try it on a small scale—paint a shingle and let it dry. Recollect that it must be mixed thicker than common paints.

The clay, when first dug, will soon dry, spread it in the air under a shelter, or, if wanted immediately, it may be dried in a kettle over a fire. When dry, it will be in lumps, and can be pulverized by placing an iron kettle a few inches in the ground, containing the clay, and pounding it with the end of a billet of hard wood, three inches in diameter, three feet long, the lower end to be a little rounded. Then sift it.

Any clay will make paint, but the colors may differ, which can easily be ascertained by trying them on a small scale as above indicated. By burning the clay slightly, you will get a light red, and the greater the heat you subject it to, the brighter or deeper red.—*Country Gentleman.*

*For the New England Farmer.*

#### FEEDING CATTLE.

[Read before the Groton Farmers' and Mechanics' Club, Feb. 6, 1860, by GEORGE S. BOUTWELL.]

It is now the fourth winter that I have fed my milch cows upon cooked food. The food generally consists of the husks and stalks of corn, barley or cut straw, meal, (corn and cobs ground together,) shorts, and rice meal, mixed with boiling water, and allowed to stand from nine to twelve hours before it is given to the cattle. I am now feeding together fifteen cows, three yearlings, and one calf ten months old. I consider the nineteen equal to eighteen cows, and their daily allowance of food is as follows:

168 pounds of husks and barley straw, at \$8 per ton.....	67
1 bush. shorts, 25c., 1 bush. cob meal, 25c.....	52
1 bush. rice meal, 25c., 2 bush. mangold wurtsel, 40.....	65
100 lbs. hay, at \$15.....	75
	18) \$2.60

Daily expense per cow.....14 4-9

In this statement no account is made of the fuel used or the labor of tending the cattle, the manure being ample remuneration therefor. The hay is fed dry, and the roots are given at noon. It is to be observed, in forming an opinion of the economy of feeding cattle in the manner above described, that the fifteen cows are giving milk, many of them feeding liberally, and that they consequently consume more food than cows which are not kept for that purpose. It is to be observed, also, that the husks are estimated at a price far above their saleable value, and far above the return that they yield to farmers who feed them dry and long. The cost per day, 14 4-9 cents, would purchase about 19½ pounds of hay at fifteen dollars per ton, and this amount will support a cow, but her yield of milk upon hay alone will be very small. According to the foregoing estimate, a cow that gives a trifle more than half a can of milk per day will support herself; and good cows will do more than this. I have a cow that gave from the 16th of April, 1859, to Dec. 20, 1859, 259 days, an average of 21½ pounds of milk per day, or 280½ cans in that period of time. Her yield for the year will be at least 300 cans, which, at 22½ cents, the average price, will amount to \$67.50. The cost of keeping may be estimated as follows:

For 180 days, at 14 4-9 cents per day.....	\$26.00
For 185 days, at 7 cents per day.....	12.95
For rent of barn.....	5.00—\$43.95
Yield for the year.....	67.50
Profit.....	\$23.55

I may also mention a heifer, three years old, grade one-half Ayrshire, that dropped her calf March 30th, 1859, and that, by the 30th of March, 1860, will have given 275 cans of milk. These are among the best milkers, but the poorest of my stock will yield 200 cans. I mention these facts to show that the food described is adapted to produce milk. I am quite confident that but few cows will yield two hundred cans per year when fed upon dry hay in the winter, and I am also confident that farmers generally overestimate the milk-giving properties of their cows. For a few weeks in the summer the daily yield is very large, and the estimate is based in good degree upon that, while in fact there are nine months when the quantity

is materially less. The quantity and kind of food described are not only productive of milk, but cows usually gain flesh during the winter, nor is there any perceptible weakening of the system. The heifer mentioned has been kept upon cooked food every winter. The cow has been so kept three years, and they are large and apparently healthy. I have never seen any ill effects from the course pursued.

By the process which I have adopted I am able to get a return from the corn stalks equal to the return from an equal weight of hay. At the present price of milk and hay, I think it is impossible to sell milk and get pay for the hay consumed by the cows; but by feeding upon stalks and straw, these articles yield a return which could not be obtained in any other way. Every farmer ought to consume as much hay and grain as he produces. There may be deviations from this rule occasionally when these articles command high prices, but compensation ought to be made by purchasing when prices are low.

The object sought is to feed out all the crops, and obtain as much money as could be obtained by sending it away. This can not be done by raising cattle for sale, but it may be advantageous to raise cows for milk, as, if proper measures be taken, good ones may be bred with considerable certainty. A farmer cannot afford to buy cows that have been tested and proved, as the prices are too high; nor can he usually afford to buy cheap animals, and run the risk of finding only one in two or one in three that he desires to keep.

The root crops may be made the basis of improvements in agriculture. My limited experience leads me to think that the mangold wurtzel is a profitable crop. The culture is easy and the product large. The land should be thoroughly and deeply tilled and well drained. A heavy, clayey soil is unfavorable. The land should be well manured and kept clean. A young man, John Tynan, of the age of eighteen years only, a pupil in the Albert National Agricultural Institution, Glasnevin, Dublin, Ireland, has prepared a prize essay upon the mangold wurtzel, and it is not too much to say that it is not only the best essay upon the subject in hand, but it is a model for imitation by those who write upon agricultural topics. It has been reprinted in the Transactions of the Massachusetts Society for Promoting Agriculture, and it may be read with profit by any farmer of the country. The experiments made upon the Albert Farm and cited by Mr. Tynan show that the mangold is superior to any other root for its fattening properties, and for its milk-producing qualities. The yield to the acre is also large, being, at the maximum, about thirty-two tons. Salt seems to be a specific manure for the mangold, the crop having been materially increased by its use. In one experiment, the treatment was varied by the addition of 5 cwt. of salt, at a cost of about two dollars, and the crop was increased from 23 4-5 to 30 3-5 tons to the acre. In twelve experiments, the largest crop of 30 3-5 tons was obtained by the use of 4 1/2 cords of manure, 4 cwt. of guano and 5 cwt. of salt to the acre. The manure was estimated to cost \$31.37, or a fraction over \$1 per ton of roots. Another acre, which yielded 20 3-10 tons, was manured with 2 cwt. guano, 2 cwt. of superphosphate, 2 cwt. of nitrophosphate, and 2 cwt. of salt, at a cost of

\$13.50, or 66 1/2 cents per ton. In another experiment, the same articles were used, two-thirds of the quantity of each being taken, and the result was a crop of 19 11-20 tons, at a cost for manure of 46 cents per ton. Another acre, manured with guano only, at the rate of 7 1/2 cwt. per acre, yielded 17 17-20 tons, at a cost of \$1.26 per ton for manure. I find, upon examination, that the charges for manures at Glasnevin correspond so nearly with the cost in this country that the difference need not be considered. The expense of labor is not given by Mr. Tynan, but if we assume it to be fifty dollars per acre, the entire cost will be about eighty dollars. A full crop of thirty tons would give a cost of \$2.67 per ton. With ordinary culture, my own product, in 1859, was at the rate of more than twenty tons per acre. It may safely be assumed that mangold wurtzel may be raised at a cost of three, four and five dollars per ton, according to circumstances, and at the highest rate they are a cheaper food for cattle than hay or grain. It is thus seen that mangolds are produced at a cost not exceeding 10 cents per bushel, while in my statement of the expense of keeping cows I have estimated them at twice that sum. Every farmer will do well to raise a ton for every two animals that he intends to feed during the winter, whether fat cattle, stores or milch cows.

It is generally understood, however, that the mangold does not attain perfection before January, but it may be kept until the 10th of May, or even till the 1st of June.

If the view I have taken be correct, the thought may occur to some that we have underestimated the value of Indian corn as a profitable crop. And so I think we have. It is the only crop that, in cases of extremity, and often as a matter of convenience or profit, may be used as a substitute for every other. If properly manured and cultivated, it may be raised upon every soil, and not once in twenty years, in this climate, is there a total failure. It will sustain man and beast, and it is, as an article of constant use, more palatable and healthful than the smaller grains. When fully ripe, it will endure the severities of the climate, and the husbandman may allow it to remain in the field without fear of loss, while wheat, barley and oats must be gathered at maturity, or serious results will follow. The stalks, when green, are among the best articles for soiling cattle, and, when dry, their value is equal to a third of the cost of the entire crop. May it not then be wise for farmers to give more attention to the culture of roots and Indian corn for the sustenance of their own herds, and if anything is sent to market, let it be hay, which usually bears a price disproportionate to its nutritive value?

#### THE CROW.

In an article on winter birds, we have this defence in the *Atlantic Monthly*: "He consumes in the year vast quantities of grubs, worms, and noxious vermin; he is a valuable scavenger, and clears the land of offensive masses of deceased animal substances; he hunts the grain fields, and pulls out and devours the underground caterpillars, whenever he perceives the signs of their operations, as evinced by the wilted stalks; he destroys mice, young rats, lizards, and the serpent; lastly, he is a volunteer sentinel about the farm.

and drives the hawk from its enclosure, thus preventing greater mischief than that of which he himself is guilty. It is chiefly during seed time and harvest that the depredations of the crow are committed; during the remainder of the year, we witness only his services, and so highly are these services appreciated by those who have written of birds, that I cannot name an ornithologist who does not plead in his behalf."

#### INCREASING INTEREST IN AGRICULTURE.



**Agricultural revival**—Circulation of Agricultural papers—Matters forty years ago contrasted with the present—Books—Let the boys and girls go who seem determined to leave the farm—Contact with the rough world will send them back.

FEW weeks since, we alluded to some of the evidences or results of an increased interest in agricultural pursuits which we had noticed in our recent visits to several towns in our Commonwealth. The agricultural revival, as we then called this new interest in the cultivation of the soil, is by no means confined to our own State. It pervades the whole country. Perhaps there is no more satisfactory indications of its extent and intensity, than that furnished by the Exchanges which lie upon our editorial table. Within our recollection there were, we believe, but two papers devoted to agriculture published in the United States: the old *New England Farmer* in Boston, and the *American Farmer* in Baltimore. And even these worthy pioneers, these able heralds of a better time coming, were coolly received and poorly sustained. With the genius and wit of a FESSENDEN, and the earnest common sense and wise foresight of a SKINNER, the combined circulation of these two journals never reached as many hundreds as that of several of the agricultural papers before us now counts in thousands—and we are not sure that we might not add another cipher, and say that some farmers' papers of 1860 publish more *tens of thousands* of copies than these pioneer papers ever did hundreds. But we cannot stop to hunt up statistics. Forty years ago, then, it is very near the truth to say, there were no agricultural papers, no agricultural books, and consequently no agricultural reading. The man who settled upon a piece of land wrought out, as far as he could, his own idea of a farm. His modes and his practice and his implements were such as were common to the neighborhood, varied slightly by his own taste, skill and judgment. Virtually he stood alone. His labor was solitary—his business lonesome. He worked and experimented by and for himself.

But now, with more agricultural papers than

we have States in the Union, the humblest tiller of the soil feels the happy influence of companionship with a host of peers and fellows in the common work of progress and improvement. Thousands may be waiting for the results of his experiments in the most solitary corner of his out-of-the-way farm. A noble band of brothers, these readers and contributors of agricultural papers. Social, sympathetic, united! Well may we congratulate ourselves on such an interesting revival of agricultural interest among the people of our whole country—East, West, North and South.

But if the number of the papers devoted to the interest of the farmer, which are now read and supported by farmers, may be cited with hopefulness and exultation, surely the talent and ability which are displayed in their management may be regarded with the highest degree of satisfaction.

We might also refer to books on agriculture, which are swelling our libraries to a size that is fast assuming the solid proportions of the libraries of the professions—the great secret of their respectability and attractions—and to the labor-saving implements, which do the work of menials and slaves, greatly relieving the severity of our toil, but we do not propose to do so at the present time.

We have already run on with these remarks till we have hardly space left for the announcement of the object, or idea, of this article.

In view of this increasing interest in agricultural pursuits, we wish to suggest that, in our opinion, greater freedom may be extended to farmers' sons and daughters in the choice of a profession. For ourselves, we are ready to sign a proclamation that, henceforth, every one who desires to do so may leave the farm and the farm-house, forthwith!

As the business of agriculture now stands, there is little hope of success by any of those sick of home, victims of fate plodders, who believe they were made for mechanics, merchants, peddlers, preachers, politicians or fiddlers. All these classes are wanted, but not on the farm. In the late discussion of the question, "What will tend to make farming pleasant and profitable as a pursuit?" by the Legislative Agricultural Society, it was well suggested that a love of the business is essential. People must take hold of it from choice, and voluntarily devote to it the best energies of their minds and bodies, or the business will not be either pleasant or profitable.

Who has not often remarked, that, among the strange whims of our common humanity, there is a disposition to do those things which it has been forbidden to do, and to leave undone those things which it has been most persistently advised and exhorted to do. Recognizing this as a well-

known, but often neglected principle of human nature, we do honestly believe there is danger that the advice to farmers' sons to stick to the farms may be too frequently repeated. Certainly there is such danger, if those whom we seek to influence by our advice see, or think they see, either in the frequency, or in the manner of our admonitions, anything that has the appearance of coercion, or of an attempt to interfere with the freedom of individual action. In the choice of a profession and of a wife, young America brooks no dictation. He may possibly bear advice of the simplest kind on either point; but if he mistrusts that there is a particle of compulsion in its composition, it will be rejected, though by doing so, he should be forced to act against his own convictions of duty and policy. Under the influence of this dogged wilfulness, mistaken for independence, many leave the farm, resolutely determined not to return, and with that determination so positively and repeatedly expressed, that they are ashamed to return when fully satisfied that such is their wisest course. With them, exclusive familiarity all their lives with the business of farming, has bred a hearty contempt, while distance has given enchantment to the view of other occupations. Among our personal acquaintances many of the most contented and successful farmers are those who have, by personal experience or observation, had the best opportunities of contrasting the advantages and disadvantages of the various trades and professions with those of agriculture.

*For the New England Farmer.*

#### AROOSTOOK COUNTY, ME.

The Farmer for Mechanics—Soll of Aroostook—Limestone—Surface Undulating—Growth of Timber on High and Low Lands—Grain Crops, Oats, Wheat and Buckwheat—Corn—Buckwheat Straw Injurious to Pigs and Young Stock—Laying New Shingles on Old Ones.

I like the *Farmer* very much; although I am a mechanic, and my farming is limited to a small garden, yet I find much information profitable to nearly all classes.

Aroostook is a large and extensive county, with a rich and fertile soil, exceeding anything this side of the far west. The soil is of a limestone formation, a ledge of it underlying nearly the whole country, from two to six feet deep from the surface.

The surface is not rough, neither is it a dead level, but undulating, or lying in swells. The growth on high lands is beech, birch and maple; in the valleys, fir, cedar and spruce. There is very little waste land in comparison to other parts of the State. The crops average larger here than any other place I have been acquainted with. Oats average from forty to fifty bushels per acre, although one hundred are sometimes raised. One of my neighbors in 1858 raised from four acres 382 bushels, averaging 35½ pounds to the bushel. 20 bushels of wheat per acre is an average, and everything else except corn in proportion. I do

not think the soil suits corn so well as it does other crops; corn is raised, but not to great extent. There is no end scarcely to buckwheat—it is very extensively grown; some farmers raise two thousand bushels, and not one in twenty but raises one hundred.

Some time last year I saw an inquiry in the *Farmer* as to whether buckwheat straw was injurious for stock to live on, and as I have never seen an answer I would say that it is injurious to young pigs, and if they lay in it, it will set them crazy, and they will finally die. It is hurtful to hogs and young stock to run through it when green, making their head and ears sore and itch very much.

I saw a suggestion the other day in the *Farmer* about laying new shingles upon old ones: that is practiced here, but we lay a coat of lime mortar on the old shingles and put the new ones on while the mortar is soft. This makes it safer on account of fire.

J. A. HUBBARD.

*Hodgdon, Me.*

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY MAY NUMBER OF N. E. FARMER.

Page 202—*Hungarian Grass*.—After reading dozens, yea scores, of reports in reference to the yield, value, uses and superior advantages of the crop which is variously designated as millet, Hungarian grass, German millet, Egyptian millet, &c., and after examining a large number of specimens of the seeds sold or held under some of the above names, (as also under the name of "Honey Blade,"), together with some of the plants grown from these seeds, I have come to the conclusion that they are all of one genus or species, botanically, and that, in common farmer phraseology, it would be proper and of some advantage to speak of them all as varieties of millet. We have a great many varieties of oats and of wheat and of corn, and as it is absolutely necessary in some cases, and of advantage in almost all, when speaking of these grains, to designate the particular kind or variety concerning which you may be making such or such an assertion,—as there would be great confusion, misunderstandings, and contradictions, without such particularizing of the kind or variety spoken of,—so is it now as to the different varieties of millet. They are not accurately distinguished, nay, they are supposed by many to be entirely different kinds of plants, and both seeds and plants of different kinds pass current under the name of Hungarian grass. From these causes we have much want of clearness in our descriptions and our apprehensions of what is said or written about the subject. It would, therefore, be a great advantage if some one would do for the varieties of millet, what has been done for the similar varieties or kinds of wheat, oats, corn, &c., and of apples, pears, cherries, &c.

I have been led to the train of thought which is outlined in the foregoing remarks, partly in consequence of repeated proofs in agricultural publications, and in talks with farmers, that the majority are ignorant of the fact that Hungarian grass, honey-blade grass, &c., are nothing more than new names for a grain long known as millet, or for a mere variety of the same, and partly in consequence of an attempt, in the article under no-



tice, to base a distinction between Hungarian grass and common millet, on what seems no more a characteristic of any *special variety* in millet than the stiffness of the straw or the mode and amount of tillering are characteristic of any general or essential difference in wheat. The writer says, "this grass never grows too large and stiff, like millet, but each seed throws up from the root, in anything like fair ground, from one to five or ten stalks, and sometimes in rich land, sowed thin, from ten to fifty of about equal size, each covered with its own beautiful blades, and when ripe, a heavy head." Let those who grow millet of any kind this season make observations as to this and other, real or supposed, distinctions between kinds passing under different names. Numerous observations are yet needed to establish the truth and put down the errors or misapprehensions in regard to this old, but recently revived and improved crop.

It is not intended in anything I have said that the varieties of millet introduced into this country from other countries, known as German, Hungarian, Italian, Egyptian or other millets, are not superior to our old or common millet. The discriminating reader will perceive that the contrary of this is implied throughout. But it is intended that all these, and especially Hungarian grass, are nothing more than varieties of millet, and not, as many seem to think, plants essentially or generically different, and that, to prevent misapprehension, these varieties should be made the subjects of discrimination more than they have been.

*Page 204—Legislative Agricultural Meeting.*—In the attempts made by the several speakers to decide what are the most profitable crops to raise on Massachusetts farms, some things were said which would be of value to almost every cultivator of the soil in that State, as well as in many others, and which went to show that different men have different ideas or experiences as to what are the most profitable crops, at least for themselves. And the only shape in which the question discussed can be satisfactorily or usefully decided, is when each individual decides it for himself, the local advantages, or disadvantages, and other circumstances of different farmers, rendering it impossible that any one system of cropping can be the most profitable for *all*. And if each individual would thoroughly consider and judiciously decide, every year, what crops it would be most profitable for *him* to raise, I am inclined to think that many would find time thus spent in head-work as profitable as that spent in any kind of hand-work. In determining what crops I can most profitably raise, I must take, as every one must, many things into consideration, such as the amount of the manure on hand, the peculiarities of the markets most accessible, the price of help, &c., &c. Among the many considerations which should have an influence on my decision, there is one to which I would give more weight than to almost any other, namely, this, that, as a general rule, *those crops are the most profitable which can be consumed upon the farm and converted into such marketable articles as milk, wool, butter, cheese, meal, live stock, &c.* Whatever crops can be made to produce the greatest amount of these articles, and leave behind them the most valuable manure, are surely the most profitable in the long run; and as

M. P. has suggested in his article on page 211, it is more economical to feed not only the more bulky articles but even grain, to stock upon the farm, if we can obtain a return of only 80 per cent. of the cash or market value of these articles, than to carry them off to market. The manure is worth the difference.

*Page 206—The True Object of Farming.*—This article, abounding in suggestions well deserving of serious consideration, might have been, perhaps, more appropriately headed, or titled thus: How Farming may be made a more Ennobling Pursuit. And if the methods here recommended for making farming more ennobling and dignifying in its influence upon those engaged in it were habitually held in remembrance, and adopted in daily life, there would be among us, even among those in lowly life, more true noblemen than there are of men, so called, among all the titled aristocrats and large land-holders of the sea-girt isle. If a farmer, in virtue of a serious consideration of the thoughts here presented to his attention, were to resolve to aim at the several objects mentioned, and to consider them habitually as of *more importance* than making money,—if he were to resolve to conduct all his operations on his farm as God's steward and co-worker, and to find out what method of management secured the largest amount of His smile and approval, as evidenced in His causing the largest returns from that method,—if he would resolve to make himself ever better and better acquainted with God's great book of Nature ever open before him,—if he were to resolve to make his home and its surroundings as full of gratifications for the sense of beauty as God has made the fields, and all the works of His hands,—if he were to resolve to make all things in his pursuits and in his communion with Nature's author contribute as much as possible to educate, enrich and exalt the minds of his children,—and if, finally, he were to resolve that in all his dealings with his fellow-men, he would do to them as he would that they should do to him, and that this golden rule of action should be extended even to his feeding, working, management and care of the animals committed to his charge, what a *nobleman* would he be! Surely it cannot be accounted presumptuous or at all inappropriate to add here, that when such a farmer shall be called away from his sphere of duty, labor and privilege here, to another province in God's illimitable universe, he will receive a plaudit of "Well done, good and faithful servant," and be assured that as he has been faithful and wise in his administration of a few things he will now be advanced to be ruler over many things.

*Page 213—Carrot Juice in Butter.*—Judging by specimens of butter we have seen and eaten of for several winters, I should say that the man or woman would be weak and foolish indeed who would wish any better color in winter butter than that which good feeding and care, and especially, perhaps, a good amount of clover hay, is capable of imparting. And if the carrot or clover juice is not put *inside the cow*, we are quite sure that, though any desired color may be obtained by doctoring or dyeing the butter, yet the good, rich relish and flavor of butter made from a well-fed cow can never be had by any artificial means whatever.

MORE ANON.

*For the New England Farmer.*

### A GOOD HELPER.

In the autumn of 1858, having on hand the stover from half an acre of corn, I purchased from a drove a small two-year-old heifer, paying seventeen dollars for her. The corn fodder, with a little salt hay, wintered her through. On the first of May, 1858, she dropped her first calf. When four weeks old it weighed, after being dressed, 80 pounds. During the month of June, with nothing save her pasture feed, she averaged 18 quarts, wine measure, per day. In July the drought, shortening her supply of feed, she shrank to 17 quarts per day. In August, dry weather continuing, she fell away an additional quart. In September, I began to feed her with corn stalks, and she averaged 15 quarts per day. In October, without fall feed for second crop hay, she averaged 14 quarts per day. In November, 13 quarts. In January, February, March and April she averaged quite 10 quarts per day.

The past winter she has been kept upon swale hay, with about four quarts of shorts per day.

Assuming that while the calf was with her she gave 17 quarts per day, her first year's lactation amounts to,

May.....	527 qts.	December.....	372 qts.
June.....	540 "	January.....	310 "
July.....	527 "	February.....	290 "
August.....	496 "	March.....	310 "
September.....	450 "	April.....	300 "
October.....	434 "		
November.....	390 "		4946 qts.

Which, at four cents per quart, what it has readily brought at the door, except what was consumed in my own family, amounts to \$197.84.

The cost of wintering the first winter I roundly estimate at \$15.

Wintering.....	\$15
Pasturing.....	7
Past winter.....	25
First cost.....	17

Amounting to.....\$64

I have been offered, and refused \$75 for her this spring. She is expected to drop her second calf late in the coming summer.

Increased value, \$58; added to the income of the first year, making \$255.84. Deducting the cost of keeping for one and a half years, with the first outlay, making \$64, from the year's income, with the increased value, leaves a net profit of \$191.84.

Those making use of her milk consider it of superior quality.

H. M. COUCH.

Georgetown, May 8.

### EFFECTS OF SOAKING SEEDS IN CHEMICAL SOLUTIONS.

The following is an extract from the Transactions of the Highland Agricultural Society:

"I steeped the seeds of the various specimens exhibited, in sulphate, nitrate and muriate of ammonia, in nitrate of soda and potash, and in combinations of these; and in all cases, the results were highly favorable. For example, seeds of wheat steeped in sulphate of ammonia on the fifth of July, had by the tenth of August, tillered nine, ten and eleven stems of nearly equal vigor; while seeds of the same sample, unsoaked and sown at

the same time, in the same soil, had not tillered into more than two, three, and four stems. I prepared the various mixtures, from the above specified salts, exactly neutralized, and then added from eight to twelve measures of water. The time of steeping varied from fifty to ninety-four hours, at a temperature of 60 degrees Fahrenheit. I found, however, that barley does not succeed so well if steeped beyond sixty hours. Rye grass and other graniferous seeds, do with steeping from sixteen to twenty hours, and clovers from eight to ten, but not more; for being bilobate, they are apt to swell too much and burst. The very superior specimen of tall oats, averaging 160 grains on each stem, and eight available stems for each seed, were prepared from sulphate of ammonia; they had an average of thirty-four grains in the ear. The other specimens of oats, which were next the most prolific, were from muriate of ammonia; and the promiscuous specimens of oats were from the nitrate of soda and potash—strong, numerous in stems, (some having not less than fifty-two,) but not so tall as either those from the sulphate or muriate of ammonia."

*For the New England Farmer.*

### IS FARMING PROFITABLE?

MR. EDITOR:—Sometime since I was much interested in an article in the *Farmer*, by your correspondent T. J. Pinkham, of Chelmsford, headed, "How to Reckon the Cost of Farm Products." I am glad he wrote it, for I believe it will result in good to farmers. I recommend to all farmers the practice of keeping a debt and credit account with their farms in general, and with particular crops, stock, &c., that they may be reliably informed in regard to the cost of whatever they produce. One reason, doubtless, why farmers know so little definitely in regard to the cost of a bushel of grain, or potatoes, or of a ton of hay, and consequently of their stock, is the fact of the changeable character of our climate.

I recognize Mr. Pinkham as the author of an article entitled "Does Farming Pay?" on page 447 of Vol. XI. of the monthly *Farmer*, to which I replied on page 533 of the same volume, under the same heading. At first I supposed him hard in earnest, and was surprised to find a bold editor at the end of the article. But finding friend P. quite candid, and really in earnest in his remarks, in which he seems to figure so as to well sustain his position, I hope he will pardon me for being bold to review his last article on the subject, on page 562 of the monthly, to which I hope the reader will refer. That it costs much more to cultivate an acre of corn on some kinds of land than on others, even sometimes double, I admit; and on the first reading, his estimate seems a somewhat plausible one, but after carefully re-reading it several times, and criticizing, I obtained a different view. His bill of cost for cultivating up to September, is a fair one for some soils, under the method pursued—high enough for almost any, and very high for soils of easy culture. In regard to his ten loads of manure, however, if he charges it all to the corn crop, there may be a deduction of five dollars, only one-half the cost of the manure being generally charged to the first crop, and if the land be a stiff, green

sward, such as would require two yoke of oxen to plow, the corn would be likely to receive still less benefit from the manure, in which case, the chief fertilizing effect of the manure would be seen in the crops that follow the corn.

In the matter of harvesting, a fine saving can be made in his items of cost, the common price per acre for cutting up corn at the roots, and stooking, in these parts, being one dollar, though sometimes a dollar and a quarter to a dollar and a half is paid for cutting very stout corn—a saving of 25 to 50 per cent., on P.'s cost of merely topping the corn, or cutting the stalks. Some men will cut up and stook from one to two acres of corn a day, depending upon its size; by the way, quite a gain over the old method of topping the stalk and picking the corn. Two dollars is ample remuneration for husking; and in regard to shelling, I will mention that I was one of three men who shelled in one day, the present year, corn that measured one hundred and twenty bushels after it was shelled and winnowed—in ten hours' time—at a cost of not more than three dollars, or seventy-five cents for thirty bushels; and as to marketing, it may be sold when at town on other business, in part at least, and delivered at any distance less than ten miles, for two dollars. So, in fact, without going further into particulars, I find there may be ordinarily—I do not intend to adopt the minimum extreme in my prices—a saving of ten dollars in cultivating the crop, and five dollars off from the manure, reduces the charge of expenses from forty-seven dollars to thirty-two dollars, giving five dollars clear profits on the acre of corn, or a return of sixteen per cent. on the capital invested, after deducting for interest, taxes, rents, &c., in short, all that is chargeable to the crop, and allowing two yoke of oxen to plow the ground, which is not the general custom, and adds to the expense.

The planting may be done by hand at a cost of seventy-five cents an acre, or with a corn-planter, by horse power, at even less expense, when some fertilizer may be dropped in the hill, with only the additional cost of the fertilizer, instead of two dollars and a half, as Mr. P. has it, which would still lessen the cost of the crop, and makes the profit on the capital employed equal 22.5 per cent. In short, he seems to have taken a rather stubborn piece of soil, and adopted (what would be considered in this section) an expensive mode of cultivation, though he remarks that "it will be seen that we have cultivated our crop in the most prudent and economical manner."

A farmer living but a few miles from here, is reported to have recently stated that he had raised the present year an acre of corn at a cost, in labor, of ten dollars and fifty cents, and had once raised seven hundred bushels of corn on fourteen acres of land, manured broad-cast. The cost of raising the premium corn crops that are reported in *Agricultural Transactions*, that generally range from seventy-five to one hundred bushels to the acre, and where the land is manured heavily, is generally but little more than thirty dollars per acre, and sometimes a little less than thirty.

And here let me add a statement concerning the cost of raising a crop of corn on some of the plain lands of Massachusetts, which are of easy culture, and generally cultivated without manure, according to the philosophy your correspondent

recommends in the remarks that follow his statement of the expense of corn raising, (top of second column on page 563.)

ONE ACRE OF CORN.	Dr.
Plowing and harrowing.....	\$2.50
Planting and seeding.....	75
Hoing twice.....	3.00
Cutting up and stooking.....	1.00
Carting, husking, stacking fodder, &c.....	3.00
Shelling, delivering to market, &c.....	1.75
Interest on land, taxes, &c., &c.....	1.50—\$13.50
VALUE OF SAME.	
Twenty bushels of corn.....	\$20.00
Fodder, &c.....	5.00—\$25.00
Net profit.....	\$11.50

instead of sinking ten dollars (or 21.5 per cent. on the capital invested,) as a dead loss, as in Mr. Pinkham's statement. And he further remarked that, in his opinion, "there are but comparatively few acres of corn planted in this State, but what run the owner in debt more than this has!" and adds, in all gravity, "what is true in regard to this crop is true of most others; only much more so, (P) for aside from the hay crop, the corn is the most reliable, as it is the most important upon the farm." How, then, in the name of common sense, is it that hundreds and thousands of farmers in New England, and in this State, even, whose only income is from their farm products, manage to get along a whole life-time without becoming bankrupts? Indeed, if P.'s statements are correct, farming is a *remarkably disastrous* business, and any man who will follow it, must be *remarkably stupid!* I fear that, after all, the facts are against friend P., for if such a state of things obtains in his vicinity, the case cannot be general. And I can assure him that hundreds of bushels of corn are raised in this section of the State, at a cost not exceeding the above, and which often net the cultivator a higher per cent. of profit. Fifty bushels per acre have been taken from these soils, without manure, when first subdued from their natural state.

In regard to the net profits on the corn crop, where manure is applied, I will refer Mr. Pinkham, and the reader, to agricultural reports on premium crops of corn, where the per cent. of profit is given as high as fifty to one hundred, which, if these are not fair premises to judge from, at least show what the farmer may do by judicious management.

I find a paragraph in the address of Gov. Washburn, delivered in 1858, before the Middlesex South Agricultural Society, which may well be quoted in this connection. He says:

"Farming has always seemed to me to be like theories in political economy. You may take your slate and pencil, and sit down and cipher yourself into a good income, or no income at all; you can demonstrate beyond contradiction, that the country is going directly to ruin, by too high or too low a tariff, just according to the data you assume at the start. And yet, in the face of these calculations, the country goes on prospering, and the farmer finds himself better off at the end of the year than at the beginning, though ruined, beyond retrieve, by figures which, it is said, 'do not lie.'"

All farmers, I am sure, do not always realize as good pay as first rate mechanics, who can command great wages and steady employment through-

out the year, but it is often owing to improper attention to their business, or from their being located on stubborn or worn-out farms. But any farmer who has a hundred acres of New England soil at his command, need have no fears of finding a pauper's grave, if he but attends to his business; and if he is not free from debt, he may soon be, if he manages properly, and is industrious.

Let us now look at the figures Mr. Pinkham has given us in reference to the cost of raising calves. Here (I do not speak of elsewhere) the hide of a very young calf is worth nothing, for it cannot be sold, except rarely to a "tin peddler," who will pay twenty-five cents "in trade;" but generally a young calf of the native herds will bring one dollar for fattening, or to raise, if a buyer can be found. But \$2 94 for tending a calf during the first eight weeks of its existence, five and one-fourth cents a day, seems an enormous charge; and then I can hardly conceive how so young a calf can dispose of a bushel and a half of meal in the same time, about a quart a day, upon an average, for the first two months. He may possibly be made to eat it, but it is much more than is for his good, in connection with its milk. I am raising a calf that is now two weeks old, and I find that the attention he requires, does not occupy more than five minutes a day of any person's time. The milk, I acknowledge, Mr. P. puts down at a very low figure. "To eighteen weeks at grass, at ten cents per week, \$1 80." In this part of the country, pasturage can be obtained for yearlings, in their second summer, for eight to ten cents a week; and calves in their first summer, of course, do not consume so much food. "To twenty-six weeks' keeping in barn, at fifty cents per week, \$13." This charge, I think, any farmer who has hired stock kept in winter, or has taken stock to keep, will consider much too high. I have known full grown cows, when not in milk, kept for that price. So I think it will not be too much to deduct one-half from Mr. P.'s estimate, which leaves not a high price for a good yearling. But I must confess I do not regard the raising of stock, except under peculiar circumstances, as profitable as many other branches of farming, and think that generally there is but little to be made from it, directly.

In other departments of agriculture, at least in this part of the Connecticut Valley, a "handsome profit, is realized by the farmers, and I know of instances in which they are slowly but surely becoming "before-handed," as it is termed, simply by cultivating farm products.

A gentleman, not very distantly related to the writer, bought a piece of new land, containing fifteen acres, for \$165, a few years since, from which pine timber had been cut the previous winter. It was broken up and sowed to rye, yielding two hundred and sixty-four bushels, which was sold at one dollar per bushel, and with the straw, gave a clear profit exceeding considerably the original cost of the land. It was planted the following year with corn, though in an unfavorable condition for a corn crop, and also suffered much from the drought, yielding a fine profit above the cost of the work in raising. I might give other instances, with plenty of vouchers for their truth.

The same farmer, when he commenced business as an agriculturist, ran in debt for his land to the extent of several hundred dollars, some twenty

years since, and though having a family to support, has cleared himself of debt, and made extensive improvements in fences, buildings, &c., besides adding, by purchase, some forty acres more to his farm, all of which is now free from debt, with several dollars in surplus funds; and all obtained from the land by the raising of crops, no "outside successes" having been met with, notwithstanding the unprofitableness of farming.

I find that Mr. Pinkham and myself have arrived at very different conclusions in regard to the consequences of farming, while we both may think we have based them upon reliable premises. For my own part, I have endeavored to give correct statements, and for that end have consulted other farmers on many points.

I might extend these remarks much farther, yet I must say, I did not find an answer to the question, "How is it, then, that farmers get along?" which Mr. P. propounds, perceiving it to arise from the view of the matter he has presented, and claims he "can very easily answer," but I have thus far looked in vain for a proper answer.

This subject is one of great importance to the farmer, and it would be interesting to compare facts and opinions in relation to it from different parts of the country.

J. A. A.

Springfield, 1860.

*For the New England Farmer.*

#### THE POTATO ROT NOT CAUSED BY INSECTS.

MR. EDITOR:—When I wrote the article upon this subject, which is now causing so much anxiety and trouble in a certain quarter, I did not know that Mr. Lyman Reed had laid claim to the \$10,000 award offered by the State of Massachusetts to the discoverer of the cause and remedy of the potato rot; nor did I know that he had obtained a patent right for his pretended discovery, backed up by a certificate from seventeen members of Congress, who "devoted one whole day in the Agricultural Committee Rooms of the Capitol" in examining into the subject, but who cannot be supposed to know half as much about the subject as seventeen plain, shrewd, common sense Yankee farmers, who have been carefully and critically examining into the subject for the last ten or fifteen years; but I did know that Mr. Alexander Henderson, of New York, had attempted to show that the potato rot was caused by insects. It was not, therefore, against Mr. Lyman Reed's claims and interests that I offered the seven reasons to prove that the potato rot was not, and could not be caused by insects. These seven reasons were the result of careful observation and long experience, and were stated so clearly and forcibly, that even Mr. Reed himself seems to quail before them. Why, otherwise, does he charge me with using "vague generalities" and "hypothetical theories?" I used no vague, or ambiguous expressions, indulged in no new fancies, hypotheses or theories, but stated the simple, naked truth in seven propositions or reasons, which it becomes Mr. Reed as a gentleman and scholar, fairly to meet, and logically to answer. If he feels himself competent to do this, the quicker he does it the better for himself, and for his claims upon the public.

JOHN GOLDSBURY.

Warwick, May 14, 1860.

### THE TIME TO CUT GRAIN AND GRASS.

This is an important matter, and one that has not received sufficient attention. Farmers are in the habit of cutting their grain and grass at the most convenient time, and without much regard as to what effect such cutting has upon the weight and nutritive qualities of the crop. They will continue to do this, because they have not bestowed thought or investigation upon the subject, and therefore do not realize the losses which they incur by neglecting to harvest grains and grasses at the proper time. The reasons of this loss are so plainly set forth by Mr. ANDERSON, the learned editor of the *Farmers' Journal*, published at Montreal, that we prefer to employ them, to using words of our own. He says that

"Grass, while still green, contains a large amount of starch, gum and sugar. The sugar is perceived in the sweetish taste of the juice; the starch and gum, being nearly tasteless, are not so readily perceived. The principal nourishing ingredients in all kinds of food are starch, gum, sugar, and some nitrogenous compound. But the starch, gum and sugar are mainly changed into hard indigestible woody fibre when grass fully matures. If the ripening process be arrested eight or ten days before its completion, and the plant be dried rapidly, double and treble the amount of starch, gum and sugar will be secured. The same reasoning holds true of all kinds of grain. Every one is familiar with the sweet taste of green corn, wheat in the milk, etc. When the growth is completed, cut these crops and you save a considerable amount of rich nutriment which would otherwise be changed to the woody fibre of the outer shell. The only point to be looked to, is, to wait until the accumulation of juices is completed, and then begin the harvesting at once. The only exception to this rule is with crops designed solely for seed; these may well be left to the natural full ripening upon the stalk, especially when the seed is to be kept long.

The proper time for cutting grasses is at the moment the seed is set, or immediately after the flowering is over. Clover should be cut as soon as in full bloom.

A large number of experiments on wheat and other grains indicate that the proper time for harvesting is when the kernel is fully formed, but still soft enough to yield to a moderate pressure between the thumb nails. This is usually about ten days before maturity."

This reasoning is undoubtedly correct, not only because it is founded on true scientific principles, but also because it is confirmed in an abundance of experience by those who have put the matter to practical test. It would be safe, we think, to say that millions of dollars would be saved to the country annually, if this single item of business of the farm were carefully investigated, and such a practice adopted as the investigation would certainly suggest.

The want of a more accurate knowledge of the business in which he is engaged, of a clearer insight into matters which he cannot comprehend at a glance, is one leading reason why the profits of the farmer do not more constantly meet his expectations. It certainly is not because there is any inherent defect in our soil or climate, or that nature is not generous, even lavish in her favors, but rather that the farmer does not closely observe the wants of the soil, the influence of climate and the effects of depositing seed, gathering

crops, or doing many other things at a wrong time, or in an improper manner. He must become a *thinker*, as well as worker, before the profession in which he is engaged will keep pace with the progress of other arts, or afford him that material aid and comfort which he fancies other occupations confer.

In the coming harvest, there will be opportunity for every farmer to test the value of these remarks, by cutting a portion of his grain at that moment when the kernel is fully formed, but so soft that when he presses it between his thumb nails, he can squeeze it to a pulp, and notice a slight milky juice in the mashed mass. Then leave a portion ten or twelve days later, and upon threshing and cleaning up carefully, compare the results. If this course were adopted by one or two intelligent farmers in every neighborhood, and reported to the agricultural papers, it would do much to settle the question and introduce a uniform practice.

To test the value of hay cut early with that cut later, may be a more difficult matter—but still, by weighing portions of the two kinds, and by a critical observation of the manner in which the cattle eat them, and their apparent effects, something may be learned that will be valuable. A pretty fair test would be to lay equal portions of each kind of hay, side by side, in front of the stanchions before the cattle are tied up, and on bringing them to their places, observe whether they make a selection. It would be necessary probably to try this more than once, and if the preference of the cattle were uniform upon one kind of the hay, we should feel tolerably safe in being guided in our practice by their instincts.

We hope experiments will be made and reports sent us that may be published for the benefit of all.

*For the New England Farmer.*

### INOCULATION OF DISEASED CATTLE.

Since it seems evident that the cattle disease is much more extensive and troublesome than at first feared, and that the means taken to prevent its extending farther have failed, as might have been reasonably expected from the first, would it not have been both prudent and wise to have tried inoculation, which has been from the first stated to be effectual, upon those portions of infected, isolated herds, which were not already diseased? Or do our commissioners and veterinary surgeons esteem it their only province to kill? It seems to at least one person, that a far better way would be to forthwith inoculate every one of a herd where the disease makes its appearance. Legislative measures will prove powerless, unless a measure of this kind is resorted to. I have been told, on what I consider good authority, that cattle from a diseased herd, several animals having died from it, of the identical disease now prevalent in Massachusetts, have within a few weeks been sold in

the Philadelphia cattle market, and whether, or how far they may spread the contagion, time only can show; and this fact, among others, shows the propriety of immediate inoculation of the herds where the disease appears. The cattle referred to were not from this State. Killing evidently affords no certain, and hardly a probable relief to the disease. It is not improbable that the disease may be communicated from one herd to another in the clothing of drovers, commissioners, surgeons and attendants of diseased animals.

Boston, May 25, 1860.

D.

*For the New England Farmer.*

#### LETTER FROM KANSAS.

*How to make Hens lay—Cottonwood Trees—Shingles—Forest Trees in Kansas—Wild or Natural Fruits—Preserves.*

MR. EDITOR:—Last week I was several miles out into the territory, and stopped at night at a cosy log cabin nestling among the timber upon Walnut Creek. The next morning, after breakfast, I was surprised to see my landlady go out, and catching her hens, tie each one's legs together and throw them upon the ground with "There, be good." "What did you do that for?" I asked. "To make 'em lay," she answered. "Make them lay, will that do it?" I inquired. "La, yes," she said, "didn't you ever hear tell of that before?" I confessed I had not. In about an hour she went out, and picking up the hens, sure enough, some had laid; those she let go, and they ran off, not even cackling their gratitude. But those hens who seemed disposed to be contrary, she struck upon the back, saying, "You'd better lay, you'd better lay, for you won't go till you do," and in a while they, too, had recompensed their mistress for feeding them so bountifully. She says that she does so every morning, and that the hens know well enough that "they have got to lay." So you see even invention lives in Kansas.

But of trees. One of my friends has just cut a cottonwood tree upon his land in the river bottom which measures three feet in diameter, eighty-four feet from the ground. He computed that it would make 800,000 shingles, which at \$2 per thousand, nets \$1600, and there remains the large top for fire-wood, which is three and four dollars a cord. He bought forty acres of bottom land and paid thirty dollars per acre, a year ago. His land is thickly covered with such large trees. Five years ago such timbered land could be had by "squatting" upon it; now it is worth fifty dollars an acre, and cannot be got for that. Every owner knows how valuable his land is, since civilization is marching through our forests to erect villages over fallen trunks and upon our Western prairies.

The cottonwood is an inhabitant of the whole Mississippi Valley. It derives its name from the blossom, which flowers out like cotton. The seed is so natural in the territory that if a piece of newly-plowed ground is allowed to remain uncultivated a year, young cottonwoods spring up all over it. The trees run up like an arrow to the height of eighty or one hundred feet, and branch out at the top large and full. The leaves are full and shiny. The trunks grow sometimes very large. Not far from our house is one tree measuring ten feet in diameter. The young trees make excellent flag-staffs, so straight and stout. Mul-

berry trees are also abundant, which make the most durable posts, and burn as well green as dry; oak, black walnut, hickory, ash, hackberry, which is the best for wagons, pecan and sycamores are also abundant.

In their season, we have plenty of wild fruits in Kansas, which is very gratifying to us Yankee preserve lovers in this new land of barren orchards, and, perspectively seen, cultivated fruit trees: wild grapes, plums, elderberries, mulberries, strawberries, blackberries, black raspberries or thimbleberries, gooseberries, wild cherries, ground cherries, crab apples, pawpaws, and other fruits, the names of which I cannot now remember. So, if we do give up the orchards of New England, Nature does as well as she can for us here. Many of the people that have been brought up in the woods do not even know how to preserve fruits for winter, and swear at "those Yankees" who are always scouring the woods and "getting their winter's living out of them." They had much rather let the fruit decay on the bushes than have us "Yankees" teach them how to preserve them!

SUSIE VOGL.

*For the New England Farmer.*

#### ANALYSIS OF THE GARDEN RHUBARB.

MR. EDITOR,—Dear Sir:—Perhaps a chemical analysis of the leaf stalks of the garden rhubarb, (*Rheum Rhabonticum*), may not be unacceptable to the readers of your paper, and I therefore take the liberty of sending to you the results of my analyses of the juice of this plant made June, 1859, and May, 1860.

The leaf stalks of the rhubarb when pressed yield 90 per cent. of juice, and leave 10 per cent. of cellulose and fibrous matter.

One thousand grains of this juice, after filtration through paper, on being evaporated in a water-bath to dryness, yield 31 grains of solid matter. This burned gives 3.3 grains of ashes, or saline ingredients, which consist of

	Grains.
Potash.....	1.717
Phosphate of lime.....	0.350
Lime.....	0.002
Carbonic acid.....	1.200
	3.269

The carbonic acid was combined with the potash and lime, and was produced by combustion of the acid, with which these bases were originally combined. One thousand grains of the filtered juice, analysed for the acids, saccharine matter, and mucilage, yielded

	Grains.
Oxalic acid.....	3.53
Malic acid.....	7.30
Glucose, or grape sugar.....	9.63
Mucilage.....	8.30
	23.76

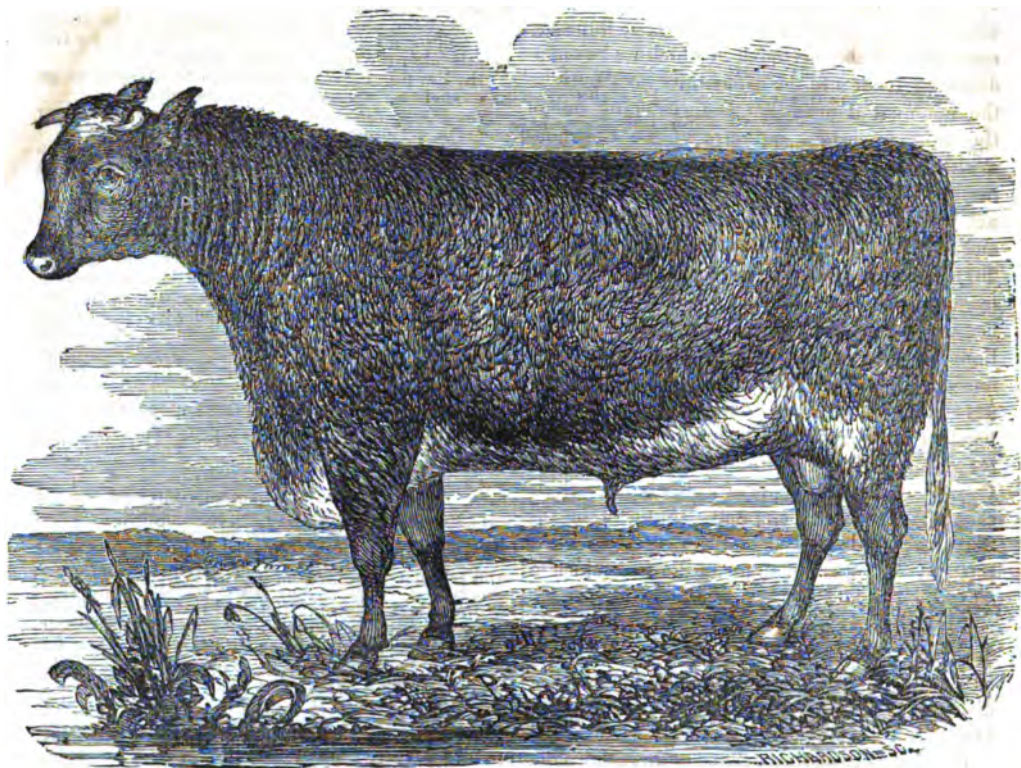
The oxalic acid is chiefly combined with potassa forming bin-oxalate of potash or salt of sorrel, but there is an excess of this acid, which is not taken up by any base present.

The malic acid, excepting the very minute quantity required to saturate the lime, is in a free state. It is obvious that, since no tartaric acid exists in the juice of the rhubarb stalk, it is not suitable for the manufacture of wine, and that the fermented juice has more the properties of cider.

CHARLES T. JACKSON, M. D.,

State Assayer.





**DURHAM BULL---CHICAGO DUKE.**

The fine animal illustrated by this engraving, is the property of the Hon. JOHN WENTWORTH, of Chicago, Illinois, and was bred by R. A. ALEXANDER, of Woodford County, Kentucky.

Mr. Wentworth was born and reared on a farm in New Hampshire, and all his early life was devoted to the noble and inspiring pursuit of agriculture. Like many other young men, however, he wished to see the world in some of its other phases, and left the farm for the printing-office, which is the best epitome of the wide world in our knowledge. This led him into political affairs, and these into Congress. He has been a working man everywhere—at home, in the printing-office, caucus, on the stump, and in Congress. But in the midst of all these allurements, he never forgot the farm, nor lost sight of that domestic bliss which oftener resides in the farm-house than in any other place; and although immersed in the sea of politics as the editor of a paper, or in the halls of Congress, or guiding the interests of the people in a populous and progressive city, he has always found opportunity to return to his first love, and engage in some department of agricul-

tural life. One of his efforts has been to introduce into the West a better breed of cattle, and the "Chicago Duke," who is now looking at you from above, is one of the specimens of his introduction.

We have often spoken of the Durham cattle as a breed, and do not think it necessary to devote space to that point now.

**EXHUMATION OF RUINS.**—There has existed a long time a record which fixed the site of the watch-house which was erected by the Plymouth settlers, on Burying Hill, during the late war with King Phillip, in 1675. The exact site and size of the building has never been accurately determined until Saturday last, when portions of the foundation were laid bare. The foundation was of stone, upon which were laid brick, made evidently of clay taken from our shore. The building was about twelve by sixteen feet, and was situated about one hundred feet North of the original fort erected by the settlers of 1620, and upon that part of the hill which commands a very extensive view of every direction. These ruins were found but about a foot below the surface of the ground, and have been several times interfered with by the digging of graves.—*Plymouth Rock.*



### THE CATTLE DISEASE.

No person who has bestowed any consideration upon this subject will wonder at the prominence which we have given it in our paper, or think the space unprofitably occupied in which we have endeavored to arouse the community to a sense of the imminent danger that is threatening one of the most important interests of the Commonwealth. In this State, in the year 1855, the number of milch cows (we copy from the *Advertiser*, not having the documents at hand) was 148,569, and of heifers 35,441; valued together at (\$4,892,291) a little short of five millions of dollars. Of oxen there were 50,225, and of steers 27,286, valued together at (\$3,246,341) more than three millions of dollars; an aggregate exceeding eight millions altogether. Of these 33,917 milch cows, 9444 heifers and 18,561 oxen and steers valued together at \$2,022,921, or more than one-quarter of the whole, were returned from Worcester County, in the very heart of which is raging a disease affecting those animals, as novel in this State, as it is dangerous and destructive. Nor is this all; 8,116,009 pounds of butter, valued at \$1,678,557, and 5,762,776 pounds of cheese, valued at \$464,250, are returned as the annual product derivable directly from the useful animals that are now threatened with extermination by a disease more destructive than any thing that has ever affected neat stock in this country.

Could the disease be confined to this State alone, it would be bad enough, but it threatens to spread over the whole country. Cases are reported in New Hampshire and Connecticut, which can be traced to exposure from the infected districts, and the proper precautions are being taken, we trust, in time, to prevent its spread.

We often hear of its ravages in Europe, but we doubt whether a tithe of our readers are aware of the extent to which it has prevailed there, and the enormous expense which it has entailed upon the Government of Great Britain alone. We copy the following article from the *New York Tribune*, giving an account of the ravages of the pleuropneumonia in England, in 1744, and in Holland, in 1857:

"In 1744, a farmer residing at Poplar, in England, imported two calves from Holland, under circumstances exactly similar to those attending Mr. Cheney's importation. Starting from this point, slowly at first, but more rapidly as more means for its propagation were offered, it spread over the length and breadth of the land, destroying hundreds of thousands of cattle, and continuing its devastating effects with almost unmitigated severity down to 1754-5. Notwithstanding the deep and painful interest which this disease excited, and the efforts made by the government to stay its ravages, it was ascertained by one of the Commissioners appointed to investigate the matter, that in Nottinghamshire alone 40,000 head of cattle perished in six months, and in Cheshire upward of 10,000 in the same space of time.

By a special act of Parliament orders were given:

1st, For the killing of all the infected animals, and

burying them entire with the skins on, 'slashed from head to tail,' that they might not be used for the purposes of the manufacturer.

2d, For the burning of all the hay and straw used about the animals.

3d, For the cleansing and fumigating of the sheds, etc., and for no sound cattle to be put in them for two months after the removal of the diseased.

4th, For no recovered animal to be allowed to go near others for a month after its convalescence.

5th, For no diseased cattle to be driven to fairs or markets, nor for the flesh to be used for dogs, etc.

6th, For no healthy cattle to be removed from a farm where the disease had prevailed in less than a month after its disappearance.

And, lastly, orders were given for the notice of an outbreak to be immediately sent by the farmers to the proper authorities.

In one year, the third of the existence of the disease, £135,000 were paid out of the public treasury as a recompense for the cattle killed according to the prescribed orders. During the year 80,000 head of cattle were killed because more or less infected, and nearly double that number died of the disease. The prompt action of the Government, although it did not eradicate the disease, yet much diminished its ravages, and undoubtedly shortened the period of its sojourn in England.

In 1857 over 14,000 head of cattle were slaughtered or died, in only forty-three villages in Holland, causing a distress among the peasantry of a lamentable nature. What distress an equal mortality among the neat stock of American farmers, most of them not over rich, would occasion, may be imagined. Let pleuropneumonia once get to the prairie country of the West, and sweep away 20 per cent. of the cattle from which this city is supplied, and what would be the effect upon the railroads and cities, that even under existing circumstances can barely hold their own? We therefore think it highly necessary that Ohio, Indiana, Illinois, and, coming Eastward, Pennsylvania, New York and New Jersey should take their precautions before they are invaded by the disease. A competent commissioner should be chosen by each of these States to go to Massachusetts, investigate the disease, and report to their several Legislatures the means of prevention found effectual, that the necessary legislation might at once be taken.

Once let the malady pass the boundaries of the State, and an irretrievable injury may have been done. It is almost unsafe to purchase a head of stock from Massachusetts, for, however remote from the infected district, they may have been diseased by reason of contact with some animal exported thence. When the State Commissioners are prepared to announce to the public which towns are and which are not infected, the butchers in this city, and stock-growers and farmers throughout the country, will at least be able to purchase understandingly.

As it is now, infected cattle from the Connecticut Valley, or other parts of Massachusetts, may be sent to this market, or to Albany, there sold to farmers for the yoke, and thus whole districts be ravaged by the disease. Not a single hoof should cross the borders of Connecticut except after being inspected, under the heaviest penalties; and the sooner this stringent regulation is adopted, the better it will be for us all."

At the meeting of the Governor and Council, on Thursday, May 24, it was decided that the peculiar circumstances of the prevailing cattle disease were such as to render the calling of an extra session of the Legislature expedient. Gov. Banks accordingly issued his proclamation, calling upon the Legislature to assemble at the State House, on Wednesday, May 30, at noon.

We have noticed fewer cases reported, the past week, but they have generally come from new quarters. Among the new cases is one at Pepperell, where the cow of Mr. Andrew Wood, which had been purchased in Brookfield, in April last,

was suspected of being diseased, and a subscription having been raised to indemnify the owner, was killed, together with her calf. Both animals proved to be suffering from the disease. It was ascertained that another cow, in North Lancaster, had been exposed from the keeping of Mr. Wood's cow in the same barn on her way from Brookfield, and she exhibited signs of the disease. She has been isolated until further action by the Commissioners. It is asserted, says the reporter of the *Journal*, and we have had the same assurance from other sources, that, in every case yet known to the Commissioners, a direct communication can be traced with Mr. Chenery's herd, or with cattle exposed by others which had received the contagion from that source. The fact is one of much importance, and it ought to be made known and well weighed, as an evidence of the contagious and not epidemic character of the disease.

On Wednesday, May 23, the Commissioners visited South Malden, and, after examination, ordered a cow belonging to Mrs. Susan Josslyn, and animals of John McBath, James Moran, Zebulon W. Davidson and Mr. Connors, thirteen in all, to be confined in enclosures isolated from all others. The cow belonging to Mrs. Josslyn was purchased of Mr. Chenery, of Belmont, but did not develop the disease till quite recently. The examination by the Commissioners resulted in strong proof that it was affected by a virulent lung disease. The other animals have been exposed, and having ranged over the marshes, may have given the disease to other cattle.

With regard to the spread of the cattle disease into Connecticut, we have the following:

Some of the Connecticut papers express fears that the disease has gained a footing in that State. To remove all doubt, Dr. Dadd, of Boston, visited the suspected district (Stafford Springs) a day or two since, and examined one or two animals, and pronounced them infected with pleuro-pneumonia of the worst type. The people held a town meeting, which was addressed by Dr. Dadd, and a committee was appointed to confer with the State Board of Agriculture upon the subject. The animal butchered was taken from Sturbridge, Mass.

On the other hand, the *Hartford Courant*, after full inquiry, is satisfied that the cattle panic which prevailed in Connecticut last week was unfounded, and that the pleuro-pneumonia has not yet been introduced into that State. It does not see the necessity for the grant of a large sum of money to keep the disease out of the State, but thinks that Commissioners should be appointed, with large discretionary powers, for a limited period, to act in concert with the local town authorities to prevent the moving of cattle through the State, or their introduction from Massachusetts.

May 28th, the House Committee on Agriculture, at Washington, had another meeting on the subject of the cattle disease in Massachusetts. The Secretary of the National Agricultural Society gave some further information relative to the matter.

Dr. Calvin Cutter informs the *Journal*, that on the 28th he was called to examine a cow at Antrim, N. H., which was said to be diseased. He found in the pasture of David Hills, two cows exhibiting evidence of the disease. They were killed and examined, and both exhibited pleuro-pneumonia of an intense type. These animals were taken from Acton, Mass., to New Hampshire on the 4th of May. The citizens of Antrim held a meeting on the 28th, to devise means for the safety of their herds. Meetings were held in Deering and Weare on Monday, which passed resolves peremptorily prohibiting the passage of cattle across the town lines. All the cattle in pastures adjacent to other towns are to be removed into the interior, and only horses will be kept in the boundary pastures. The utmost vigilance will be used to prevent contagion.

Several of our Agricultural Societies, among them the Middlesex, South Middlesex and Franklin Societies, have voted to dispense with the show of neat cattle the next fall, and the rest will probably follow their example. Indeed, we think it would be the wisest course for all the New England Agricultural Societies to avoid any possible exposure of stock to the disease, during the present season, at least.

Several cases have been reported in Holden, Worcester county. Cattle killed there have shown unmistakable proofs of the infection. The *Worcester Spy* says:

"There is now danger that the disease will be introduced here by cattle driven into the city from neighboring towns. It is already rumored that a pair of oxen affected with the disease have been driven into the city from Holden. We gave the particulars of the slaughter, on account of the disease, of Mr. Dike's cow in Holden. Another cow that took the infection from this, has been slaughtered there, and found very much diseased; and the disease has appeared in a yoke of oxen belonging to the same herd. It is estimated that from seventy-five to one hundred head of cattle have been exposed in Holden. There is need of the utmost caution."

The near approach of the disease naturally creates much excitement in that vicinity. The Mayor of Worcester, which adjoins Holden, has issued a proclamation recommending the complete isolation of individual herds in Worcester, at whatever cost or inconvenience to the owners. Also the erection of fences to separate contiguous pastures by the space of twenty-five or thirty feet, and that cattle be driven upon the highways only in cases of absolute necessity, and then that contact with others be carefully avoided. Policemen are stationed upon the streets leading from the

infected districts, with peremptory instructions to prevent all ingress of cattle upon any pretext whatever.

A similar course is being taken by the farmers of New Hampshire. The last number of the *Concord Patriot* gives an account of meetings held in Weare, Deering, Hopkinton and Hillsborough. The people are determined to stop the passage through their towns of all cattle, from whatever direction. New cases have been found in Hillsborough and Antrim. The disease has not made its appearance in Weare, as yet, and the authorities hope, by prompt action, to escape a visitation.

A rumor is published in some of the papers that the disease has made its appearance in York county, Maine, and that several valuable cows have died from its effects. A commission from Maine, consisting of S. L. Goodale, Esq., Secretary of the Board of Agriculture, Dr. E. Holmes, editor of the *Maine Farmer*, and Dr. Amos Nourse, of Bath, arrived in this city to attend the extra session of our Legislature, with regard to the disease.

New Jersey, also, is threatened by the scourge. It has appeared in Newark. The *Journal* gives the following statement :

In December last, Mr. Johnson, a Newark farmer, bought six calves in the New York market. In a few weeks two of them died, and he has since lost two others. He has had five cases which he thinks entirely recovered, and five are now sick. Last week one of his animals died, and another was killed. These animals were examined by competent surgeons and others, and it is said that both cases presented every indication of the disease existing in this State, and were pronounced by Dr. Gryce, V. S., of New York, as well as the medical gentlemen present, unmistakable cases of pleuropneumonia. A large portion of Mr. Johnson's herd have been sent to pasture, where there are hundreds of cattle together, and it is feared that disease has thus obtained a sure foothold.

A commission has been appointed by the Governor of Ohio, to visit this State, and investigate the origin, causes and nature of the cattle disease.

The General Assembly of Rhode Island have passed an act to prevent the introduction and dissemination of infectious or contagious disease among the neat cattle in that State. It makes stringent provisions against the introduction of any cattle into the State in violation of the act; give town councils full power to take all measures they may deem necessary to prevent the spread of the disease in their several towns; provides for a board of commissioners, of one member from each county, to attend to the faithful execution of the act, and fixes severe penalties upon the sale of any cattle known to be infected, and upon transporting cattle from a town where the disease is known to exist, to other towns in the State. It takes immediate effect, and is to continue in operation until suspended by proclamation of the Governor.

On Friday, June 1, before the special committee of the Legislature, Rev. Daniel Lindley, recently from the mission at South Africa, gave some interesting facts concerning the disease in that country. He said :

The distemper was introduced into South Africa about six years ago, by the importation of a bull from Holland. He was on the voyage about two months, and the disease appeared in about six weeks, but its nature was not known at first. The animal died, but not before the disease had spread. In that country the cattle are kept in large herds, and wander over large tracts of land. Oxen are used there for transporting goods all over that country. When the existence of disease became known it was too far spread to be stopped. Nothing was done by the government to stop it, and the destruction was extensive. The destruction there has been such that many persons have been obliged to give up cattle, and have taken to raising sheep instead.

He was anxious to bring the committee to realize the importance of the subject. It has spread 1200 miles from Cape Town across the continent, and was fast spreading along the coast. Animals died in about eleven weeks after exposure. Inoculation was practiced by every man for himself, and was partially successful. Mr. Lindley explained the process of inoculation, and the symptoms of the disease. He said that some of the cattle died from inoculation whose lungs were not affected at all. There is no accounting for this; it is contrary to science and all general rules. He had known animals that had died after inoculation, that had taken the disease from an exposure. It was hard to tell whether the animal died from the disease or from inoculation. Inoculation will not cure—it is only a preventive. Some of the oxen get along very well after inoculation, and some of them are quite sick. Others are worked all the time. In Europe they think less of inoculation than in South Africa. He did not know how the climate would affect the matter here. Where he lived, the thermometer ranged from 93° to 42°. He was confident that the disease could be stopped here by isolation. He was certain that it is a contagious disease.

A vote was taken allowing the gentlemen from Maine to ask questions, and the witness was examined minutely into the peculiarities of the disease in Africa, and as to his opinion concerning the similarity of that disease with the one existing in Massachusetts. He was quite confident that it was the same disease. They have in South Africa the genuine pleuropneumonia, which they know all about. This disease under discussion, came afterwards, and is very different from it, in being contagious.

**HEALTH OF AMERICANS.**—De Bow's mortality statistics, compiled from the last census, show that the people of the United States are the healthiest on the globe. The deaths are three hundred and twenty thousand per year, or one and a half per cent. of the population. In England the ratio is near two per cent., and in France nearly three per cent. Virginia and North Carolina are the healthiest of the States, and have six hundred and thirty-eight inhabitants over one hundred years of age.

**FIBRILIA, OR FLAX COTTON.**—Three addresses delivered by STEPHEN M. ALLEN, Esq., before the Legislative Societies of Massachusetts and Rhode Island, and the Class on Agriculture at Yale College. We gave the substance of these lectures last winter in one of our reports of the Legislative Agricultural Society. For sale by A. Williams & Co., Boston.

**SUMMER PRUNING APPLE TREES.**

We have often called attention to this subject, and are happy to know that the practice of pruning trees in the spring, while the sap is in motion, has been entirely discontinued by large numbers of our best farmers. For the comfort of those who controvert the theory of summer pruning, we will say that we are not acquainted with any living horticulturist who is distinguished in his profession, who is the advocate of spring pruning; nor do we know of any eminent writer on the subject, either in this country, or in England, or France, who would recommend the orchardist to prune his trees while the sap is in active motion. No one thing, in our judgment, is so certainly destructive to our apple orchards as to trim them in the months of March, April and May, and if the season is a warm and early one, they had better not be touched during the last of February.

At some moment of more leisure we will collect the authorities which favor summer pruning, and think they will be sufficient to settle the matter conclusively in any observing and unprejudiced mind.

These remarks have been suggested by noticing in the *Germantown Telegraph* the following paragraphs. We have been on the grounds of Mr. FREAS, the editor of the *Telegraph*, have observed his trees, and heard his opinions, and are happy of an opportunity to lay the latter before the reader.

It is a pretty well established fact that apple trees—and we would add pear trees—pruned from the middle of July to the middle of August, sustain the operation with much more advantage than if pruned at any other period of the year. If pruned at this time, the wound will heal over, and make, what surgeons would say of a properly amputated arm or leg, a handsome stump. If the branches be lopped in winter or spring, the stump generally leaves a perpetual scar; and if after the sap has commenced flowing, a bare bone, as it were, projecting from the living parts of the tree, and remaining there until it rots away, when frequently the decay continues on, as a sort of gangrene, into the very heart of the tree, much to its injury. Who has not observed this in his experience?

We have more than once witnessed the benefits of pruning in midsummer, and have always been impressed with the advantages over the system generally pursued. On one or two occasions, some years ago, we adverted to the fact, and now again call attention to it, especially as the season for trying it is at hand.

**ADULTERATIONS OF FOOD.**—We want a little touch of French depotism in these matters. Every drop of milk brought into Paris is tested at the barriers by the lactometer, to see if the "iron-tailed cow" has been guilty of diluting it—if so the whole of it is remorselessly thrown into the gutter; the Paris milk is very pure in consequence.

If a tradesman adulterates any article of food offered for sale, he is first fined, and then made publicly to confess his fault, by means of a large placard in his window, setting forth the exact nature of the trick he has played upon his customers. Imagine some of our leading tradesmen obliged to sit in sackcloth and ashes, and suffer this moral pillory! One or two rogues thus exposed would have a marvelous effect in keeping the sand out of the sugar and the burnt beans out of the coffee.—*Once a Week.*

*For the New England Farmer.*

**BEES.**

**MR. EDITOR:**—For several years past bee culture has been growing in interest throughout New England, and among most all classes; but more especially among the mechanics and professional men. The culture of the bee is a most fascinating employment, and one every way adapted to the female department of the household. I am often inquired of as to the price of a swarm of bees. Let me say the spring of the year, before swarming time, is the best time to purchase, because ordinarily you get two stocks instead of one; if you buy a new swarm, you get no cost from it the same year. To ascertain whether the swarm is a good one, say any time during the month of May, try its weight, and see that this is right; a common hive will weigh about twenty-five pounds. The Langstroth hive, as made by Mr. Frye, of this town, weighs about forty-five pounds; but it is too heavy; the bees, five or six, and the comb and honey, from ten to twenty-five pounds; though few of our common hives have this quantity of honey in them at this season of the year. See that the comb looks bright and clean. If it is two years old, it will be of a darkish yellow color. The older, the darker the comb will be; observe also whether there are bees between nearly all the sheets of comb. A person who is accustomed to seeing bees often, can tell pretty well as to their health. A good healthy swarm will have a peculiar look about them which cannot be described. There is a bright, brisk, lively, wide-awake look and movement about them which settles this question. If you can purchase a swarm which answers this description, with a fair hive, complete as to boxes, &c., anywhere within fifty miles of Boston, for ten dollars, take it, if you want; it's cheap enough; and if you give the bees the care they ought to receive, it will pay you fifty per cent. the first year. Last season bees did poorly in all this region. May was too cold and wet for them, and few bee-keepers "had a swarm in May (or June) worth a load of hay." This month and the next are the two harvest months in bee culture in New England. What extra honey is made by the bees after the 20th of July, will not be more than what you will be obliged to give your stocks in the fall. Bees require as much care during this month, as any other during the year, and many stocks are lost, dying of starvation, simply from want of a little timely attention from their master. I find the early morning the best time to attend to all bee matters, where it is necessary to come in contact with them. My rule is, whenever I am about to do anything about the hive likely to disturb them

much, always to be prepared for a fight, as feeling safe from their sting, I take things "fair and easy," and usually learn my bees so. During the past winter, I left my stocks out exposed to the weather, with no protection but the hive, and they stand on the north side of a high hill, and they came out finely this spring, and I have never had any which look better than mine at the present time; heretofore, I have always advised housing them during the coldest months. N. Q. T.

King Oak Hill, May, 1860.

#### BUTTER AND CHURNS.

We have just come from the stall of one of the neatest butter merchants in Boston market,—a man whose personal appearance, at first sight, is a guaranty that what he sends to your table as good butter will be as fragrant as a June rose, provided such can be found among the butter-makers of New England or New York. This stall is No. 1, Faneuil Hall Market, and the man you will meet there, in a long frock, as white as the driven snow, is Mr. J. W. MERRIAM. Upon asking him what proportion of *first rate* butter he thinks there is out of all brought into market, he replied, "*Only one pound in ten!*" This is the judgment of a man whose business of life has been for many years to buy, and sell, and judge of the article of which we are speaking, and he states it as his opinion that only one pound out of every ten brought to Boston market would be pronounced by good judges as *first rate* butter!

It costs as much, ordinarily, to make a pound of poor butter as to make a pound of good, so that if we had the means of showing how much is brought into this market annually, we could show a loss to the farmer which would startle him so as nearly to shake the very bones out of his body! But this shaking would not abate the prejudice of some against thought and investigation, and they would still go on cutting their hay and grain at improper times and attempting to cure them without the use of caps, hacking their fruit trees in March and April, and making miserable butter that is a drug at ten cents a pound when it might just as well command seventeen!

It is not a difficult thing to make good butter,—but in order to do so, certain conditions must be complied with, because they are absolutely essential conditions, and without this compliance, all the labor that can be bestowed upon it, together with the best materials, will be employed in vain. The first prerequisite is *cleanliness*: cleanliness almost to a fault,—and this must begin with the milker. The cow's bag must be kept clean, so that nothing adhering there shall taint the milk before it passes into the hands of the dairy-woman. This care must be observed in every stage of the process. The milk and cream

should be kept in a room by themselves; never where there are turnips, onions, or other roots, or smoked or dried fish, or any thing else that imparts odor to the air of the room.

The next important consideration is that of *temperature*; this should be as even as possible, not only while the cream is being gathered, but especially so when it is brought out and put into the churn. All the surroundings should then be alike in temperature—the cream, the churn itself, and the air of the room in which the churning is going on. For the want of this uniformity many a vexatious hour has been passed, beating the cream into froth, but bringing no butter. It will not answer to bring cream from a room where the temperature is 62°, and dash it into a churn the temperature of which stands at 40°. An equalizing process immediately takes place between the two substances,—the cream elevating the temperature of the churn, and the churn depressing that of the cream, so that the latter is in no condition to be converted speedily into butter.

When the butter is made, and is really *good*, its value in the market greatly depends upon the manner in which it is put up. Mr. Merriam showed us two lots he had just received from the town of R \* \* \* \*, Vermont, and remarked as he replaced the covers upon the tubs, "Allowing the butter to be of the same quality, there is three or four cents difference per pound in its value in consequence of the manner of packing! Look here, there are no prints of fingers *on that lot*, and the cloths that cover it are adjusted with just as much nicety, as though its sale depended entirely upon that point. See how white the tubs are! This lot of butter is worth *five cents* a pound more than the other." The most money can be made on the best butter, both by the farmer and the butter-merchant.

Many persons impute great virtue to the churn in butter-making, and seem to suppose that a good article cannot be made, unless by the use of a particular churn. But with a good deal of experience and observation in the matter, we have found that any churn so constructed as to strike the cream a frequent and smart blow, would soon bring the butter, provided the other conditions were right, good cream and a proper temperature in the cream, churn and room. The common dash churn is constructed upon the right principle to bring the butter quickly, and the only objection to it seems to be the hard work required to use it.

Several points more suggest themselves in regard to this important branch of farming, but our remarks are already too long for us to enumerate them. We trust this point will be remembered by every dairy-woman, viz., That the butter that is made the best, and put up in the most careful manner, *will always return the largest profit!*

*For the New England Farmer.*

### A GOOD EXAMPLE IN FARMING.

MR. EDITOR:—Your correspondent, T. J. Pinkham, is laboring hard to convince us that farming is a most unprofitable business, but I am one of those that disagree with him in the matter. That poor farming does not pay, I will admit, but does poor *anything-else* pay? Will a merchant who does not take every possible means to keep himself thoroughly informed in regard to the various details of his business ever succeed?

I believe that farming, *good farming*, will pay as well as any other business, all things being equal; that it requires labor, tact, energy, and a good amount of common sense, I will admit; but will a man succeed in any business without these very *desirable* requisites?

In walking with a gentleman in his pasture a few months since, we came across a sow of very fair appearance; says the farmer, I have realized more than seventy-five dollars from the sale of pigs from that animal the present season, and it has not cost me five dollars to keep her! An acquaintance purchased late in the fall of '58, fifty young ewe sheep at \$1.25 a head—has sold wool averaging \$1.90 per head, and forty-five lambs at an average of \$1.75 each, realizing over \$3.50 per head for keeping his sheep less than one year, the cost of which will not exceed 88 cents, and has his 50 ewes for another year's service!

A case in point came under the writer's notice a short time since, in one of the towns not many miles from Boston:

An elderly gentleman lived on, and carried on, quite an extensive farm, but after many years of hard labor and frugal economy, found himself largely in debt, there being a heavy mortgage upon his farm. A son of the old gentleman becoming of age some five years since, bought the farm of his father, agreeing to pay a small amount over the mortgage, which nearly covered the value of the estate. The young man commenced, without capital, save stout hands and a good supply of common sense, and to-day he has paid for his farm to the last farthing, besides making valuable improvements.

How has this been done? Not by hard work alone, but with good calculation and sound judgment combined with his labor. What we want, brother farmers, is a thorough knowledge of the nature of our land, and its adaptation to certain crops, and with deep plowing, high manuring and judicious managing, if farming cannot be made profitable, what business can? Are not my ways equal, saith the Lord, and who shall say that the honest tiller of the soil shall not receive compensation for his toil, equal to that of any other trade or profession?

*Boston, 1860.*

C. C. H.

**HOW TO LAY UP A RAIL FENCE IN A WORKMAN-LIKE MANNER.**—Set stakes for a single line, then have one stake made smooth with an arm of tough wood reaching out two feet if your rails are ten feet long. The end of the arm shows where the rails are to cross. Lay the smallest and straightest at the bottom, and the large ones on top. After the worm is laid, put under the chunks. Then, as you build, put the large ends of the rails in the low places. Never notch your rails, if they

were split as they should be. When laying the last course before staking, be careful to have a small end come under the stakes. Be careful to cross the stakes the right way, and lay the big ends of the riders on top. Then the passer-by, as he goes pondering along, will take notice, and say: "*The man that laid up that fence knew how.*"—*Farmer's Advocate.*

### EXTRACTS AND REPLIES.

#### THE DESTROYER OF CATTLE.

The concentrated wisdom of the Legislature of Massachusetts is to be brought to bear upon the cattle disease the present week. If they shall be fortunate enough to have clear ideas on the subject, it will be more than has yet been diffused in the community. So far as I can learn, all the certain cases that have occurred in the Commonwealth have been traceable to one source—that is, to animals recently imported from Holland—and further, its spread has been by contagious influence. This contagion may be by direct proximity of the animals themselves, or by fodder or other objects contaminated by them. Its development when imbibed is more or less rapid, according to circumstances. It may remain latent for months, so that there can be no certainty of exemption, where there has been exposure.

I have great doubts of the propriety of seizing and slaying a few animals when the disorder is already so widely spread, and there are so many animals that have been more or less exposed. This might have been well at the first outset of the disease; now it would be better to have its characteristics, and the treatment that is applicable, from men of science—if there be such among us.

P.

*Essex Co., Mass., May 28, 1860.*

**REMARKS.**—The question is quite often asked, "How soon do cattle that have contracted the lung disease show symptoms of it?" and is very properly answered above, "that it may remain latent for months." Cases have been described to us of cattle dying quite soon after the disease showed itself, where it was certain that the animal had not been exposed for two months, and other cases of the most decided character where the exposure had taken place only ten days before the death of the animal exposed. There is something in the disease and its operations that is mysterious and beyond the knowledge of the most learned. We trust that exact scientific treatment will yet enable us to arrest it, at least in some degree, and avert the calamity that now threatens to pass over the entire State.

#### CULTIVATION OF PEAS.

On page 223 of the *Farmer* for the present month is an inquiry about raising peas. The pea crop is a very important one in this country. Any good land will produce a fair crop if well prepared. Greensward is generally preferred for sowing; they should be thoroughly harrowed in and rolled. I have never heard of plowing in on greensward, and think they would not come up the same season. Plaster is beneficial; some wet their peas and mix plaster with them when sowing; others sow the plaster broadcast after the peas are up. In a wet season it is thought the plaster makes too much vines; but it does more good here than in many places. Sow about two bushels of peas to an acre.

#### OTTER OR CREEPER SHEEP.

As the *Maine Farmer* thinks this kind of sheep have become extinct, I will say what little I know about them. My father bought a pair of them in the town of Pawlet, Vt., about forty-five years ago, and has had them ever since. We have two ewes and a buck now. They have raised no lambs for four or five years. They have all the good qualities that the *Maine Farmer* speaks of. We have had as many as twenty-five or

thirty sometimes. If I was going to raise sheep I should prefer this kind to any I ever saw. Father says he sheared 9½ lbs. of wool from the ram last year. We always called them "the short-legged sheep."

Branford, Vt.

O. H. HOADLEY.

#### RINGWORM ON CATTLE.

In the *Farmer* for the present month, on page 215, is an inquiry by Charles S. Weld for a cure for the above disease. I can inform him and others, that, when a boy residing in New Hampshire, I knew many cases exactly similar to those he mentions. We generally greased the diseased parts well with what was termed "pot skimmings," after boiling meat and vegetables, and I think it always effected a cure. The remedy is simple and easily tried.

L. VARNEY.

REMARKS.—We notice two or three correspondents of the *Rural New-Yorker* recommend tallow or lard for the cure of warts on cattle. These remedies are so accessible and simple, that we gladly recommend their trial. One of the correspondents of the *Rural*, says he had a heifer, one of whose eyes "was completely covered with large red warts, and that one of her ears was full of them," and that a few applications of tallow completely cured them.

#### THE SEASON

Has been very favorable here so far—rather dry, but the last three weeks have been warm. Apple trees are now in full bloom in this vicinity, though near the lake and in other exposed situations they are not so forward. There is a very full bloom.

A sudden change in the weather occurred in the night of the 19th. On the morning of the 20th, mercury fell to 37 degrees, and the day was cold. A frost was generally expected, but fortunately none came, unless in some very frosty locations.

What is the most hardy variety of raspberries suitable for garden culture? The white raspberries are raised here considerably, but a great part of the bushes were killed to the ground last winter, so there will be but little fruit this summer.

L. VARNEY.

Bloomfield, C. W., 5 Mo. 21st, 1860.

REMARKS.—All the raspberries that we have cultivated do much better for a little protection through the winter. Evergreen boughs thrown against them so that they will remain in place are excellent; over them may be thrown a little hay or straw. The Allen, from Western New York, is said to be very hardy and productive. The best way is not to attempt the cultivation of too many, but to protect those you have.

#### LEAD PIPE FOR CONDUCTING WATER.

Having procured water on different farms for my family and stock, both in lead pipes and bored logs, by the natural fountain pressure and by the pump, like your querist in Dayton, Me., please accept the following in answer to his inquiries, as the result of no small experience.

When water is raised by a pump, let the distance be longer or shorter, it is stagnant in the pipe during the night and most of the day, and with the occasional use of a private family, of course has great liability by corrosion to be affected by a leaden pipe, which I should not consider safe, with or without tin coating for this use.

For common aqueducts, I have found no bad effect from lead pipes, where there was a constant circulation by waste pipes, which will prevent freezing in winter, and make it fresh and healthful.

1. White pine logs—easy to bore—always sweet—no bad taste.

2. Say six or eight inches, sufficient besides the sap, to leave an inch and a half without the splice.

3. An inch and a half bore will do, as much heart outside.

4. Bark is of no consequence.

Holyoke, May 22, 1860.

BENJAMIN WILLARD.

#### STRIPPING THE COW—TO PREVENT SUCKING HERSELF—PRUNING ORCHARDS.

I wish to inquire whether it is injurious to strip or milk a cow the second time? Does it dry them up? Also, the best way to prevent a cow from sucking herself, and the best time to trim young orchards?

Sheldon, Vt., 1860.

AN OLD SUBSCRIBER.

REMARKS.—Milk the cow gently, quickly and thoroughly, then let her alone.

We do not know the best way to prevent a cow from sucking herself, having seen but one method tried, that of placing pointed nails in a bow hanging upon the cow's neck. There may be a better way.

With regard to the orchards, we do know. Trim them with the finger by rubbing off the young shoots; but if knife or saw are necessary, use them between June 15 and July 10. If unable to do the work then, omit it until the leaves have fallen in the autumn.

#### TO CURE SCRATCHES ON HORSES.

Take the gum that runs out on the end of pitch pines, and put on some every day, and it effects a cure in a few days.

I have tried the above, and found it an effectual cure. One of my neighbors tried it, and it cured his horse after he had tried almost everything else.

H. W. B.

Jacksonville, Vt., 1860.

#### HORSE PITCHFORK.

Will you, or your correspondent, "H. B. Wood, of Chester, Vt.," describe the horse pitchfork spoken of by him in the May number of the *Farmer*?

Little Compton, R. I.

JUNIFER.

For the *New England Farmer*.

#### THE BENEFIT OF A FARM.

MESSRS. EDITORS:—The profit of farming has been pretty ably discussed by your correspondents in some of the last numbers of the *N. E. Farmer*. I more than half agree with Mr. Pinkham in his opinion about the profit of farming in the county of Middlesex. Merely the act of cultivating the soil, or digging and plowing the earth to raise roots and grain, unless the farmer can do it with his own hands, will not prove a thriving business, as we now pay for labor. If the farmer's prosperity and income depended entirely upon what he could raise to sell from his cultivated crops, after deducting the price of labor, I should fully agree with Mr. Pinkham, that farming was not very profitable. A farm is a great piece of machinery; every wheel must be kept in place, and ready to act in concert, like all other machinery, to make it profitable to the owner. It is true that many professional men, traders and mechanics, can earn more by the day, than the farmer can by his labor, but the moment their hands cease to act, that moment their income stops; while the farmer never need be out of business at some kind of pay. Almost every farmer has a family on hand, or one in prospect, and we will make a comparison between him and one of an other occupation.

Every farmer has buildings on his farm, and frequently expensive ones, and almost all in the back towns are supplied with fuel from their growing wood-lots; they have plenty of work at home for their children, when not at school, instead of herding with idle associates to confirm them in vicious habits. They keep one or more horses which they use for pleasure, as well as



work; then there is the privilege of collecting the various kinds of fruit and salads of spontaneous growth, with a variety of other privileges denied to people in cities and large villages. These privileges are not always considered as items of income by the farmer; but let him give credit for them, at the price city folks pay, and the amount will show a different aspect when added to the cultivated productions of the farm. Farmers in the county of Middlesex live in houses which would rent in villages from \$100 to \$300 or more per annum, which they little think of putting to the income of the farm. Farmers' children are a great deal cheaper, and I think better, brought up on the farm, than they are in villages where there is little or nothing for them to do when not at school. Among other benefits of the farm, one important item is, the farmer is his own boss, he is not under the control of the bell, or the capricious order of an overseer, has plenty of work always on hand for himself and boys, without soliciting it from richer men than himself.

It is utterly impossible to make out estimates which will apply to general cases. I have known farmers run in debt for poor farms, and get rich from them, and have known others who had good farms given them, grow poor in spite of industry and science. After all, farmers in the country towns, by some means, pay most of the taxes and subscriptions, have every thing enough but contentment, gewgaws and finery, which they can very well dispense with, and can carry their heads up pretty well, if they would only think so, and I cannot see but they are as well off as other folks.

*N. Wilmington.*

SILAS BROWN.

*For the New England Farmer.*

#### OATS AND CLOVER.

FRIEND BROWN:—I am a constant reader of the *N. E. Farmer*, as it comes to my family every week. I feel anxious to give some of my experience as an old farmer; for I have done with labor years ago. I have been pleased in reading questions asked, and views given in raising chickens, turkeys, goslings, pigs, sheep, horned cattle and horses. Also inquiries and answers given in cultivating the soil, the managing of crops, fertilizers, &c.

I suppose most of your readers well understand that all lands do not require the same treatment. All the animal and vegetable manures do well on all the earth, as far as my experience goes; but much better on some soils than others. There seems to be a change somewhere; for soon after plaster became in use on interval land it worked wonders; the hill lands, with few exceptions, got no benefit. At this time the hill farms receive the most benefit from it. Ashes do far more good than many years ago. As most farmers do not understand how to analyze the soil, it is well to try experiments. I have learned much in that way.

Not long since I noticed an inquiry concerning clover as a fertilizer. There are different opinions concerning it. My views are to let the whole crop remain on the surface until the following spring; if not, sow winter grain. In such case plow a very short time before sowing. If any man disputes it, let him try the experiment. On

land seeded to clover with oats, where the oats lay in swath all through the next season, from soon after the clover started to grow, until mowing time, I have seen where every swath was almost as far distant as I could see the field, there being all of twice as much clover on the same width of ground as between the swaths.

*Walpole, N. H., 1860. AN OLD FARMER.*

#### SPRING.

BY RICHARD C. TRENCH.

Who was it that so lately said  
All pulses in thy heart were dead—  
Old Earth, that now in festal robes  
Appearest, as a bride new wed?  
O, wrapped so late in winding-sheet,  
Thy winding-sheet, O! where is fled?  
Lo! 'tis an emerald carpet now,  
Where the young monarch, Spring, may tread.  
He comes—and, a defeated king,  
Old Winter to the hills is fled.  
The warm wind broke his frosty spear,  
And loosed the helmet from his head.  
And he weak showers of arrowy sleet  
For his strongholds has vainly sped.  
All that was sleeping is awake,  
And all is living that was dead.  
Who listens now can hear the streams  
Leap tinkling down their pebbly bed—  
Or see them, from their fetters free,  
Like silver snakes the meadows thread.  
The joy, the life, the hope of earth,  
They slept awhile, they were not dead,  
O thou who say'st thy sear heart ne'er  
With verdure can again be spread—  
O thou, who mournest them that sleep,  
Low lying in an earthy bed—  
Look out on this reviving world,  
And be new hopes within thee bred!

PROSPECTS FOR FRUIT.—A correspondent from Port Kent, Essex county, N. Y., writes as follows: "We are suffering even more than last season from the want of rain—but we never had higher promise of fruit—our trees of every description are loaded down with blossoms." Port Kent lies on the westerly side of Lake Champlain, nearly opposite Burlington. The reports from every direction are equally favorable. Even the peach trees have waked up in many places, and have given a pretty liberal blossom. The letter of our correspondent was dated 18th—we hope before this time that the clouds over Port Kent have wept until the people have laughed.

SPAYING COWS.—The *American Stock Journal* should have credited the article which it publishes on this subject, and written by Mr. E. R. Andrews, to the *New England Farmer*, as it was written by him at our special request.

## THE EXTRA SESSION.

The Massachusetts Legislature rose on Wednesday morning, June 13th, after a session of fourteen days. The subject which called them together was one of grave moment to the Commonwealth, and they have acted quite as promptly, and probably as wisely, as could be desired or expected. The bills relating to the cattle disease, as they finally passed, we present below, and those who peruse them will get some idea of the extent and novel intricacy of the subject, and the necessity of consistent, fair and efficient, as well as speedy action. "For our part," says the *Journal*, and we copy their remarks as expressing our own opinion in the matter, "we think the State deserves great credit for the manner in which it has dealt with this mysterious visitation upon our herds. The course of the Commissioners is now generally approved. The Governor did well to summon the Legislature as soon as the extent of the evil became clearly apparent; and the members of the two Houses have met their duties in a becoming spirit. The appropriations have been liberal; and as to these two bills, time and experience only can disclose wherein they are defective. They seem to us to be the best, on the whole, that can be devised in the present state of information on the subject matter. We trust now that the towns and all public officers will see that the provisions are rigorously carried out."

## AN ACT

*Concerning Contagious Diseases among Cattle.*

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

**Sect. 1.** The Selectmen of towns and the Mayor and Aldermen of cities, in case of the existence in this Commonwealth of the disease called pleuro-pneumonia, or any other contagious disease among cattle, shall cause the cattle in their respective towns and cities, which are infected, or which have been exposed to infection, to be secured or collected in some suitable place or places within such city or town, and kept isolated; and, when taken from the possession of their owners, to be maintained, one-fifth of the expense thereof to be paid by the town or city wherein the animal is kept, and four-fifths at the expense of the Commonwealth, such isolation to continue so long as the existence of such disease, or other circumstances, renders the same necessary.

**Sect. 2.** Said Selectmen or Mayor and Aldermen, when any such animal is adjudged by a veterinary surgeon or physician, by them selected, to be infected with pleuro-pneumonia, or any other contagious disease, may, in their discretion, order such diseased animal to be forthwith killed and buried at the expense of such town or city.

**Sect. 3.** Said Selectmen and Mayor and Aldermen shall cause all cattle which, in their opinion, should be killed, to be appraised by three competent and disinterested men, under oath, at the value thereof at the time of the appraisal, and the amount of the appraisal shall be paid, as provided in the first section.

**Sect. 4.** Said Selectmen, and Mayor and Aldermen within their respective towns and cities, are hereby authorized to prohibit the departure of cattle from any enclosure, or to exclude cattle therefrom.

**Sect. 5.** Said Selectmen and Mayor and Aldermen may make regulations in writing to regulate or prohibit the passage from, to, or through their respective

cities, or towns, or from place to place within the same, of any neat cattle, and may arrest and detain at the cost of the owners thereof all cattle found passing in violation of such regulations, and may take all other necessary measures for the enforcement of such prohibition, and, also, for preventing the spread of any such disease among the cattle in their respective towns and cities, and the immediate vicinity thereof.

**Sect. 6.** The regulations made by Selectmen and Mayors and Aldermen, in pursuance of the foregoing section, shall be recorded upon the records of their towns and cities respectively, and shall be published in such towns and cities in such manner as may be provided in such regulations.

**Sect. 7.** Said Selectmen, and Mayor and Aldermen, are authorized to cause all cattle infected with such disease, or which have been exposed thereto, to be forthwith branded upon the rump with the letter P, so as to distinguish the animal from other healthy cattle; and no cattle so branded shall be sold or disposed of except with the knowledge and consent of such Selectmen and Mayor and Aldermen. Any person, without such knowledge or consent, selling or disposing of an animal so branded, or selling or disposing of an animal known to be affected with such disease, or known to have been exposed thereto within one year previous to such sale, or disposal, shall be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding one year.

**Sect. 8.** Any person disobeying the orders of the Selectmen or Mayor and Aldermen, made in conformity with the fourth section, or driving or transporting any neat cattle contrary to the regulations made, recorded and published as aforesaid, shall be punished by fine not exceeding five hundred dollars, or by imprisonment not exceeding one year.

**Sect. 9.** Whoever knows or has reason to suspect the existence of any such disease among the cattle in his possession, or under his care, shall forthwith give notice to the Selectmen of the town, or Mayor and Aldermen of the city where such cattle may be kept, and for failure to do so shall be punished by fine not exceeding five hundred dollars, or by imprisonment not exceeding one year.

**Sect. 10.** Any town or city whose officers shall neglect or refuse to carry into effect the provisions of sections one, two, three, four, five, six and seven, shall forfeit a sum not exceeding five hundred dollars for each day's neglect.

**Sect. 11.** All appraisals made under the provisions of this act shall be in writing, and signed by the appraisers, and the same shall be certified to the Governor and Council, to the treasurer of the several cities and towns wherein the cattle appraised were kept by the Selectmen and Mayors and Aldermen respectively.

**Sect. 12.** The Selectmen of towns and Mayor and Aldermen of cities are hereby authorized, when in their judgment it shall be necessary to carry into effect the purposes of this act, to take and hold possession, for a term not exceeding one year, within their respective towns and cities, of any land, without buildings other than barns thereon, upon which it may be necessary to inclose and isolate any cattle, and they shall cause the damages sustained by the owner in consequence of such taking and holding to be appraised by the assessors of the town or city wherein the lands so taken are situated, and they shall further cause a description of such land, setting forth the boundaries thereof, and the area as nearly as may be estimated, together with said appraisal by the assessors, to be entered on the records of the town or city. The amount of said appraisal shall be paid as provided in the first section, in such sums and at such times as the Selectmen or Mayor and Aldermen respectively may order. If the owner of any land so taken shall be dissatisfied with the appraisal of said assessors, he may by action of contract recover of the town or city wherein the lands lie a fair compensation for the damages sustained by him; but no costs shall be taxed, unless the damages recovered in such action, exclusive of interest, exceed the appraisal of the assessors. And the Commonwealth shall reimburse any town or city four-fifths of any sum recovered of such town or city in any such action.

**Sect. 13.** This act shall take effect from its passage.

Approved, June 12, 1860.

## AN ACT

*In addition to an Act concerning Contagious Diseases among Cattle.*

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

**Sect. 1.** In addition to the commissioners appointed under the provisions of chapter one hundred and ninety-two of the acts of the year one thousand eight hundred and sixty, the Governor, by and with the advice and consent of the Council, is hereby authorized to appoint two additional persons to constitute, with those now in office, a board of commissioners upon the subject of pleuro-pneumonia, or any other contagious disease now existing among the cattle of the Commonwealth.

**Sect. 2.** When said commissioners shall make and publish any regulations concerning the extirpation, cure, or treatment of cattle infected with, or which have been exposed to the disease of pleuro-pneumonia, or other contagious disease, such regulations made by the Selectmen of towns, and Mayors and Aldermen of cities, upon the same subject matter, and the operation of the regulations made by such Selectmen and Mayors and Aldermen shall be suspended during the time those made by the commissioners as aforesaid shall be in force. And said Selectmen, and Mayors and Aldermen, shall carry out and enforce all orders and directions of said commissioners, to them directed, as they shall from time to time issue.

**Sect. 3.** In addition to the power and authority conferred on the Selectmen of towns, and Mayors and Aldermen of cities, by the act to which this is in addition, and which are herein conferred upon said commissioners, the same commissioners shall have power to provide for the establishment of a hospital or quarantine in some suitable place or places, with proper accommodations of buildings, land, et cetera, wherein may be detained any cattle by them selected, so that said cattle so infected or exposed, may be there treated by such scientific practitioners of the healing art as may be appointed to treat the same. And for this purpose said commissioners may take any lands and buildings in the manner provided in the twelfth section of the act to which this is an addition.

**Sect. 4.** The Governor, by and with the advice and consent of the Council, is hereby authorized to appoint three competent persons to be a Board of Examiners to examine into the disease called pleuro-pneumonia, who shall attend at the hospital or quarantine established by the commissioners mentioned in the foregoing section, and there treat and experiment upon such number of cattle, both sound and infected, as will enable them to study the symptoms and laws of the disease, and ascertain, so far as they can, the best mode of treating cattle in view of the prevention and cure of the disease, and who shall keep a full record of their proceedings, and make a report thereon to the Governor and Council, when their investigations shall have been concluded: *provided*, that the expense of said board of examiners shall not exceed ten thousand dollars.

**Sect. 5.** The Selectmen of the several towns, and Mayors and Aldermen of the several cities, shall, within twenty-four hours after they shall have notice that any cattle in their respective towns and cities are infected with or have been exposed to any such disease, give notice in writing to said commissioners of the same.

**Sect. 6.** The commissioners are authorized to make all necessary regulations for the treatment, cure and extirpation of said disease, and may direct the Selectmen of the towns, and Mayors and Aldermen of cities, to enforce and carry into effect all such regulations as may, from time to time, be made for that end, and any such officer refusing or neglecting to enforce and carry out any regulation of the commissioners, shall be punished by fine not exceeding five hundred dollars for every such offence.

**Sect. 7.** The Commissioners may, when in their judgment the public good shall require it, cause to be killed and buried, any cattle which are infected with, or which have been exposed to said disease, and said commissioners shall cause said cattle to be appraised in the same manner provided in the act to which this

is in addition; and the appraised value of such cattle shall be paid, one-fifth by the towns in which said cattle were kept, and the remainder by the Commonwealth.

**Sect. 8.** Whoever shall drive or transport any cattle from any portion of the Commonwealth east of Connecticut river to any part west of said river before the first day of April next, without consent of the commissioners, shall be punished by fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding one year.

**Sect. 9.** Whoever shall drive or transport any cattle from any portion of the Commonwealth into any other State before the first day of April next, without the consent of the commissioners, shall be punished by fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding one year.

**Sect. 10.** If any person fails to comply with any regulation made, or with any order given by the commissioners, he shall be punished by fine not exceeding five hundred dollars, or by imprisonment not exceeding one year.

**Sect. 11.** Prosecutions under the two preceding sections may be prosecuted in any County in this Commonwealth.

**Sect. 12.** All appraisals made under this act shall be in writing, and signed by the appraisers and certified by the commissioners, and shall be by them transmitted to the Governor and Council, and to the treasurers of the several cities and towns wherein the cattle appraised were kept.

**Sect. 13.** The provisions of chapter one hundred and ninety-two of the acts of the year one thousand eight hundred and sixty, except so far as they authorize the appointment of commissioners, are hereby repealed; but this repeal shall not affect the validity of any proceedings heretofore lawfully had under the provisions of said chapter.

**Sect. 14.** The commissioners and examiners shall keep a full record of their doings, and make report of the same to the next Legislature, on or before the tenth day of January next, unless sooner required by the Governor, and the said record, or an abstract of the same, shall be printed in the annual volume of Transactions of the State Board of Agriculture.

**Sect. 15.** The Governor, with the advice and consent of the Council, shall have power to terminate the commission and board of examiners whenever in his judgment the public safety may permit.

**Sect. 16.** This act shall take effect from its passage.  
Approved, June 12, 1860.

## TO KEEP TIRES TIGHT ON WHEELS.

The following, if reliable, will prove valuable. A correspondent of the *Southern Planter* says:

"I ironed a wagon some years ago for my own use, and before putting on the tires, I filled the fellys with linseed oil; and the tires have worn out, and were never loose. I ironed a buggy for my own use, seven years ago, and the tires are now as tight as when put on. My method of filling the fellys with oil is as follows; I use a long, cast-iron oil-heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick so as to hang in the oil, each felly one hour for a common-sized felly.

"The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused, some time ago, when I told a blacksmith how to keep tires tight on wheels, by his telling me it was a profitable business to tighten tires, and the wagon maker will say it is profitable to him to make and repair wheels, but what will the farmer who supports the smith and wheelwright say?"

*For the New England Farmer.*

### CAUSE OF BARREN GRAPE VINES.

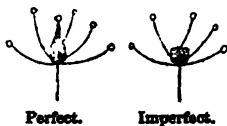
In the *Farmer* of Oct. 20th, 1859, is a communication from "B. C.," Burlington, Vt., giving an account of a grape vine that blossomed, yet bore no fruit. In your reply you recommend that a fruitful vine should be planted beside it, for the purpose of impregnating the barren vine.

Permit me to suggest that your plan would not produce the desired result. I have seen hundreds of such vines, and in every instance have found them wanting in the pistil or female organ.

All the vines "B. C." can plant around his vine will never cause it to bear a single grape. As the season for the blossoming of the grape is near at hand, "B. C." will, by comparing the flower of his vine with that of a fruitful one, see the difference. It is easy to be distinguished by the naked eye. I send you a drawing of the two flowers.

Winchester.

E. A. BRACKETT.



REMARKS.—Our correspondent is undoubtedly correct in his statement and illustration, as the inquiry of "B. C." and others led us into an examination of the cause of barren grape vines, and we found the fact as stated by him. We have had the flowers drawn greatly magnified, giving a clear view of their formation. The cut above very well illustrates the difference in the flowers.

### PURE MILK.

*Hall's Journal of Health* for May contains the following account of an association which exists in the vicinity of New York for the supply of metropolitans with pure milk:

"Within two years, a few gentlemen farmers who had friends and relatives in the city appropriated ten thousand dollars towards a plan for furnishing them pure milk, fresh from farm-house cows, within a few hours of the milking, and at the same price with the swill article. The friends of their friends availed themselves of the opportunity, until it has now become a business, and the demand is at times greater than the supply. But for the purpose of keeping to the mark of their original determination to supply pure milk only, and it being necessary to have a number of irresponsible employees, it has been found indispensable to institute extraordinary means of watchfulness. A special agent comes to town with the milk every day; and more, under his eye the milk is poured into cans on which are placed in metallic letters the name of each patron; the can is then locked, the patron having a duplicate key. Further, the agent is at pains from time to time to inquire of the customers if there is any fault to be found with the milk or the milkmen.

But the farmers themselves, being in independent circumstances, could not be expected to milk their own cows, and must employ hirelings; the general agent has found it necessary to watch these, and inspect the milk as it is delivered at

the railroad station, thirty miles from the city. Within a few weeks the milk of one of the oldest, richest and most honorable-minded members of the association was found to be largely thinned with water. The member was promptly and fearlessly acquainted with the fact, and that the matter must at once be investigated. Knowing his own integrity, this gentleman did not knock the agent down, but promptly sifted the matter, and ascertained that only that once 'the boys' had accidentally spilled the milk, and thought to cover their negligence by adding an equal amount of water.

This milk is delivered in New York twice a day. It is received by the agent, warm from the cows. It is next stirred until the whole is thoroughly cooled; it is then surrounded with ice and sent to the city. Thus the milk is uniformly rich, is not partially converted into butter by the jolting of transportation, and a drink of it is perfectly delicious to a citizen."

### THE CATTLE DISEASE.

Some developments have taken place since our last paper was issued, in relation to the sickness among cattle, and among them is the intelligence that it has appeared in New Hampshire. This intelligence is not based upon rumor, but upon well authenticated facts. We have seen the certificate of the physicians who examined the heifers killed at Hillsborough, which were sent from East Lexington. They have no doubt of the genuineness of the disease in those animals. There are statements that it has appeared in other towns in that State, but we will not anticipate any calamity. It is sufficiently impressive, without a particle of exaggeration.

We have been informed by the Commissioners that the disease has appeared in *twelve* different towns in this State.

Some additional light dawns upon us, also, from across the water. We have an interesting article before us from the *North British Agriculturist*, published in Edinburgh, Scotland, which says "there are very few practical men who do not believe that the disease is contagious, and who generally satisfy themselves that when the disease does appear in their stock, it is to be traced to some recent purchases in market, or by their animals having come in contact with affected animals, or from substances, such as straw, which have been in contact with diseased animals.

In several English counties—especially those around London, and in the counties of Derby and Chester, the disease has been very prevalent during winter and spring. It is also prevalent in dairies in the Lothians, more particularly the dairies in Edinburgh. The stock affected are principally cows, which have always been more subject to pleuro-pneumonia than other cattle."

We are sorry to observe that some of our people are disposed in the first place to find fault

with the action of the Legislature, by suggesting very wise counsels now as to what ought to have been done, and then condemning the Commissioners for doing just what they were instructed to do. Some of them quote the promptness and energy of the British government when the disease has invaded that country, but do not tell us from what source they derived their wisdom. On the other hand, the writer in the *North British Agriculturist* commends the energetic and decided action of our State in this matter. It says:

"In reference to the introduction of the disease into America, it is seldom that such direct and conclusive evidence as to the contagious character of pleuro-pneumonia has been presented, as is furnished in its introduction into the State of Massachusetts. Had the British Government been equally prompt on the first appearance of the disease in this country, it may be safely inferred that its spread would have been greatly checked, or perhaps wholly prevented."

There is another class of persons, including some of the cattle dealers, who purchase cattle to fatten and sell again, who are so mercenary and entirely incapable of appreciating an unselfish motive or a generous act, that they have denounced in billingsgate terms those who have watched the progress of the disease, who have done everything in their power to arrest it, and to prevent a panic among the people. These men found the price of cattle low in consequence of the disease, and their inordinate cupidity prompted them to make large purchases, at extremely low prices. They made brawling boasts of this in connection with their denunciations of others, until the disease began to turn towards their possessions, when they suddenly became as dumb and crest-fallen as they were boisterous before. This is the usual course with persons whose desire for gain overrides all the promptings of principles.

On Saturday, June 2, we visited the remaining portion of Mr. Chenery's herd at Belmont, 39 in number, and with many others examined the heifer and cow that were then slaughtered. The following statement of the examination we copy from the *Journal*, whose reporter was on the spot.

It was mainly with the view of developing the disease in a new and different aspect from that presented in the incipient and acute cases at Brookfield that the examination of subjects in this herd was made. Upon the arrival of the Commissioners a yearling calf was selected from a number of others as a fit subject to illustrate the effects of the disease in cases where the animal has been sick, and to all external appearances has recovered. The calf was taken sick in October last, and for four or five weeks was so ill as to take no other nourishment than gruel poured down its throat. During the last three months the creature has gradually regained its appetite and consequently its strength, and was supposed to be

recovering. Still it coughed, and upon percussion exhibited dullness on the right side, and strong tubercular respiration.

The necessary preparations having been made, Mr. Commissioner Lothrop introduced Dr. Martin, who stated in brief his diagnosis of the case. He expected to find the most disease in the right lung, and no doubt adhesions. The calf was killed, the right shoulder and ribs removed, and the chest laid open by Drs. Dadd and Thayer. There was a strong adhesion of the pleura of the lung to the ribs, diaphragm and heart case. The lung indicated that it had been compressed into a small compass, by serum, which had in the subsequent progress of the disease been absorbed. The windpipe contained a secretion of mucus, which probably produced the rattling heard before death; the membrane of the lung was very much thickened, and the lung tissue nearly destroyed. The cyst or bag of the lung was found empty, whereas in cases of the disease in an acute form it has been found to contain a large body of lung tissue, or the substance of the lung. The theory of those most familiar with the prevailing disease is that the tissue in this case had been softened, and reduced to a liquid state or pus, and then taken up by absorption. The left lung was found to be perfectly free from the disease. The case was not a fair sample of the disease, but it nevertheless demonstrated the theory of the commissioners that cattle once sick will never fully recover.

The next animal killed was a cow, which was brought into Mr. Chenery's herd in December last. She had never exhibited any signs of disease beyond a slight cough, and an external examination before death failed to discover any indications. As the animal had been exposed to the infected herd, it was a matter of curiosity to ascertain whether she had taken the disease. Upon a careful dissection of the lungs the disease was found to exist in an incipient stage. The heart was soft and flabby, as in all cases of this kind, and there were other indications of the prevailing contagion. This closed the investigation.

**CAUSES OF RAIN, SNOW, HAIL, FOG.**—Rain is caused by a cloud moving into a stratum of cold air, by which its particles are condensed, and run into drops too heavy to float in the atmosphere. Snow is produced by the cloud becoming frozen before its particles have condensed into water. Hail is caused by the freezing of the drops after they begin to fall as rain. Dew is the falling of their vapors of the day, when they part with the moisture in the cool of the evening. A fog is a cloud floating on the surface of the earth, and a cloud is a fog floating in the atmosphere.

**AMERICAN GUANO.**—A correspondent, in speaking of the American guano as a fertilizer, says:

About ten days ago I scattered a portion of this article on an old grass-field. I hastily marked out some characters, and sprinkled on the guano by the marks. To-day, where I sprinkled the guano, the words "American Guano," are distinctly visible, in bright green letters, which can be easily read an eighth of a mile off. Certainly this is a very satisfactory result.

*For the New England Farmer.*

### IS FARMING PROFITABLE?

What is the most Profitable Crop to Raise in this State?—Rotation of Crops.

MR. BROWN:—For 28 years I have been experimenting in order to systematize agriculture, so as to produce a desirable result, with a reduction of labor and expense. How well I have succeeded, you can best judge by looking at a *page* of my experience. Perhaps I may give some clue to an answer to the question at the head of this article. First, I will take a course of crops for one acre of land for 7 years:

LAND.	Dr.
Manure.....	\$40.00
Plowing and harrowing.....	3.50
Compost, ashes, &c., for hills.....	3.00
Planting and clearing.....	5.00
Harvesting crop.....	5.00
Harrowing and sowing rye before March 20th.....	1.50
1½ bushels rye, at \$1 per bushel.....	1.25
2d year, in March, 10 lbs. western clover, \$1, 1 pk. herds grass seed, \$1, ½ bush. R. T., 50c, sowing 25c.....	2.75
Harvesting rye.....	5.00
2 bush. plaster, sowed 3d year, in March.....	1.00
Getting hay 5 years, 2 crops clover.....	17.00

	\$85.00
LAND.	Cr.
Corn crop.....	\$65.00
Rye and straw.....	30.00
8 tons of hay, at \$15 per ton.....	120.00
After feed.....	7.50

Deduct expense.....\$222.50

Years.....7 ) \$137.50

For use of land per year.....\$19.64

Corn may now be planted with manure as before, or potatoes, as follows:

LAND.	Dr.
Plowing and harrowing.....	\$3.50
Compost, ashes, &c., for hills.....	3.00
8 bush. moderate sized potatoes, at 60c per bush.....	4.80
Planting and clearing.....	7.00
Harvesting.....	5.00
Cultivating, harrowing and sowing rye.....	2.00
1½ bush. rye.....	1.25
30 bush. ashes and sowing.....	6.00
Grass seed as before.....	2.75
Harvesting and threshing rye.....	5.00
2 bush. plaster sowed as before.....	1.00
Getting hay 4 years.....	14.00

	\$55.30
LAND.	Cr.
Potatoes.....	\$60.00
Rye and straw.....	30.00
5½ tons hay, at \$15 per ton.....	82.50
After feed.....	6.00

Deduct expenses.....\$178.50

Years.....5 ) \$123.20

For the use of land per year.....\$20.58

Now I am prepared to return to the corn crop with barn manure as before.

In this statement I have taken the lowest market price for hay, and have not taken the largest crop which I have raised. I have not, I think, but in two instances, used \$40 worth of manure, frequently \$30, and sometimes not more than \$20 per acre. You can see, however, that the manure might be raised to \$54, and not make but \$2 a year difference in the income, even though the crop should be no larger than I have stated. In the second course, the ashes might be (doubled) 60 bushels, and make but \$1 a year difference in the profit. I have received \$60 for an acre of rye and

straw, and more than \$70 for the straw standing in the field, for braiding for bonnets. I have also raised double the quantity of potatoes per acre and sold for a much higher price per bushel. I have stated results which I think the great majority of farmers in this State may reasonably expect, if they will become familiar with, and carry into practice, the course which I have here described. I say familiar with, because the hands must be quick to perform, as well as the head clear to direct.

I will also state that when this course is followed and the work properly done, the land will be increasing in productiveness, instead of deteriorating. It may be thought that the same allowance for planting and clearing the crops is quite too small, but if a healthy active man cannot do it for that, he has something yet to learn in practical agriculture. I have allowed \$1 per day for work, except getting the hay and rye, and farmers probably will differ as to the expense of harvesting these crops, according to their advantages for doing the work.

I will remark, in conclusion, that we can see the inconsistency of charging all the manure to the hoed crops, or even all the plowing and cleaning, as they require but little more labor than would be necessary to fit the land for reseeded for grass. I think a rotation of crops is the most profitable.

S. M. STANLEY.

*West Attleboro', Mass., March 21, 1860.*

### "HORSE-POWER" AS A MEASURE OF FORCE.

The phrase or term "horse-power" is continually occurring whenever there is occasion to speak or write of the force of steam engines. It is met with almost daily in the reading of newspapers, and of books or periodicals relating to science and art. Is there one reader in ten who understands what is meant by this term, or who attaches any accurate idea of the amount of power intended to this oft-recurring phraseology? We very much doubt it, and think, therefore, that a brief explanation of this term, gleaned from Encyclopedias and scientific works, may be both interesting and useful to the generality of ordinary readers. The term "horse-power," then, is used as the unit of force in the description of steam engines. Instead of saying that an engine has a power of lifting or propelling so many pounds, it is said to be of so much "horse-power." The power exerted by a horse, is taken to be equal to the pull or lift of 33,000 pounds, at the rate of one foot per minute, as this has been found to be about the mean of a good many observations and experiments. It has been found, for example, that a pair of horses will draw a plow along with an average pull of 300 pounds, as shown by a dynameter, like common spring steelyards, at an average rate of 2½ miles per hour, or 220 feet per minute. Now, this is the same as if those 300 pounds were pulled over a pulley, or lifted that height in that time; and 300 pounds lifted 220 feet per minute, is just the same as 66,000 pounds, lifted one foot high per minute. The half of this performance of a pair of horses gives us 33,000 pounds, as the force of a single horse, and with this meaning it is used by engineers.—*Country Gentleman.*

### HORSES NEED AIR AND LIGHT.

If anything can be done to add to the comfort and health of the horse, no animal deserves more to have such an effort made. Our stables should be constructed with special reference to his comfort and health, and to these all other accessories must yield.

Our fathers' and grandfathers' barns were of the wide, old-fashioned sort, with all manner of loop holes and air holes—between the vertical boarding you could put your whole hand. They were originally tight, but when well seasoned, there was light without windows, and the pure air circulated freely; here was perfect ventilation, and yet talk with those same men about the necessity of ventilating a stable, and they are ready to prove that they have kept horses all their lives, who did well, worked well, were always in fine health and spirits, and that a ventilator is only a fancy idea—one of the new-fangled notions of the present generation.

Our stables have been improved in architectural beauty, and in more permanent form of construction; they are pleasing to the eye, tight, proof against the wind and weather, and with solid walls of brick and stone, all of which the poor horse would gladly exchange for the pure, fresh air, of which he is now deprived.

In providing for the necessities of a horse, it would be well to ask ourselves, how we should like to be placed in the same situation. If it is healthy for a man to live day and night in a close, damp cellar or underground apartment, then it is healthy for a horse. If it is healthy for a man to live on the lower floor, in an unventilated apartment, with a manure and root cellar beneath him, whose pestiferous miasmas are penetrating every crack, mingling with the foul air he breathes, and rising still higher, permeating the food he consumes, then it is healthy for a horse. But why argue against barn cellars and ill-ventilated apartments? The proof is abundant to all who want it, and he that cannot be convinced, must cease to wonder why his horses have diseases of the skin, the lungs, the eye, etc., or the glands, the grease, the scratches, and other diseases that are directly traceable to the impure atmosphere, in which he compels them to stand and breathe.

We would, therefore, in the construction of a stable, endeavor to provide against these evils. Build root cellars and other cellars entirely distinct from the barn—at least not directly under the horse stalls; let there be a free circulation of air under the floor, and particularly so throughout the stable apartments. Ventilate the horse stable through the roof, and entirely independent of the other portions of the barn; let the connection between the horse stable and the hay-mow be closed tight, except when hay is being delivered. Ventilate the carriage house through the hay-mow and roof.

Let your horses' heads be towards the side or end of the barn, and provide the head of the stall with a fair sized window; a horse wants, under all circumstances, whether tired, sick, or well, plenty of light. When there is light and plenty of fresh air, it is a common practice to turn the stalls the other way, and keep the horse somewhat in the dark. A good horseman knows that a horse enjoys light and air as much as he does

himself, and he will thrive better in the coldest winter on the lee side of a hay-stack, than he will in a badly ventilated barn, however comfortable it may be otherwise. It is stated that if the gases exhaled from a horse's body were confined around him by a gas-tight bag, they would cause his death in twenty-four hours, allowing him at the same time to have his head out, and to breathe pure air.

If you want satin-skinned horses, in fine health and spirits, ready at all times to work, or to drive, a thorough system of ventilation will be one very important step towards it.

A manure shed should be built outside the stable, and sufficient only to afford protection from wind and rain, with a door connecting with the barn, and running to floor of stable, which should only be open when the stable is being cleaned. The exhalations of the manure heap are then not permitted to return to the stable—nor should any of the gases generated in the stable, be allowed to pass into the carriage-room or hay-mow.

As a matter of economy, it is just as cheap to build a stable calculated to give a horse the greatest amount of comfort, as to build it in any other way. Cellars are handy arrangements, and in the first cost it may be cheaper to put them under the barn, but a few years' experience will show the heaviest balance on the debit side.—*Cor. American Agriculturist.*

*For the New England Farmer.*

### LETTER FROM THE SANDWICH ISLANDS.

MAKAWAO, MAUI, HAWAIIAN ISLANDS, }  
JANUARY, 1860.

MESSRS. EDITORS:—*Gentlemen*,—I find myself entering upon a new year ere my communication for you is finished. Let me then say "A Happy New Year," to you who conduct, and to all who read the *New England Farmer*. May the blessing of God be upon you and the work of your hands. May each of you not only succeed in your temporal affairs, but may you, one and all, "sow to the Spirit, and of the Spirit reap life everlasting."

In my last, I had conducted you to Waipio valley, on our way to Hilo. Our way lay through the district of Hamakua, on the windward side of the island. In passing through this district we crossed many ravines, at first shallow, but growing deeper as we approached Hilo. We found no water in any of them. The country was covered with grass, and now and then a clump of trees, the kukui, the ohia, guavn, and a small sprinkling of orange. Hamakua seems well adapted to grazing purposes, though I saw very few cattle. Indeed, the district is but sparsely settled, and there is a great lack of fencing material. On entering the district of Hilo, we found the ravines still more numerous, but through most of them ran a sweet stream of water, some of them quite large. But for these ravines, Hilo would be a very valuable district, not only for grazing, but for agricultural purposes. The land is rich, and that part of it near Byron's Bay especially, will be in much demand. Ten miles ere we reached the bay, we found an enterprising American, who has a large tract of excellent land, on which he has a crop of sugar cane, and where he is erecting buildings for the manufacture of sugar. Between his place and



the bay we passed three sugar plantations, owned and worked by Chinamen, all in successful operation, making excellent sugar. On reaching the village of Hilo, once my place of residence, I found striking changes, twenty-seven years having elapsed since I left. These consisted in buildings; a fine meeting-house, school-house, stores, shops and dwelling-houses; in good roads; in gardens and fruit trees; in an increase of ships, chiefly whale-ships, visiting the harbor. I did not see that increase of industry among the native Hawaiians that I desired to witness. There was some improvement in their style of building, but there did not seem to be much agricultural improvement. The whale-ships, of which there were some sixteen in the bay while I was there, obtain wood, water and a few recruits, such as oranges, melons and a few vegetables, but their main recruits they seek at other ports.

From Hilo we took our way to Kau, the southern district of the island by way of Kilanea, the active volcano of Hawaii. The distance from Hilo to Kilanea, the volcano, is about 38 miles. And such a road! Scarcely an acre of arable land did we see after leaving Hilo. The whole country had, at a remote period of time, been overflowed with lava over which lay our road, not always visible, though for the most part our horses succeeded in picking their way. At Olaa, about midway from the bay to the crater, there seemed to be a little oasis in this wilderness of pahoehoe, or fields of lava slabs. Here was a small village, with a native or grass meeting-house. I think some kalo, such as grows on dry land, is found here, and perhaps a few potatoes, though a plow could not be used. I was glad to find a plenty of fine guavas, and several orange trees, some of which were loaded with ripe fruit. Leaving this village, we pushed on to the house where those who visit the crater lodge over night. Here we staid, though the accommodations were primitive enough, the house being a grass one, and poor at that, minus of furniture and beds; a fire kindled in the middle of the room to give us two smoke to one fire. However, we mustered the tea-kettle which is used for travellers, both here and at Kilanea, and having made a cup of tea, we covered ourselves as decently as we could and got a little sleep; rose early and pushed on for Kilanea. Till within two or three miles the way was gradually ascending as it had been from Byron's Bay, and rough. We then reached a plain of coarse sand, over which our beasts galloped and soon brought us to the far-famed crater of Kilanea. Of this let me tell your readers something.

At an early hour in the day we reached the northern bank of Kilanea, from which we so overlooked the crater that we could see all below at a single glance. As we were in need of water for washing and breakfast, our guide, a son of Rev. D. B. Lyman, of Hilo, led us to the pools of water near by caused by the steam which was constantly ascending from the fires in the pit through chasms in the bank. The steam and vapor were immediately condensed into drops of water by cool mountain air, and dropped into little basins formed by the lava. The water had collected into small pools, deep enough to allow of being dipped out with a cup, and was so warm that we could scarcely bear our hand in it. The steam and vapor were also uncomfortably warm, nearly

taking away one's breath, so to speak. On becoming cool, we found the water sweet, and we used it for our drink. But for this provision of nature, it would be much more inconvenient for travellers to remain at Kilanea long enough to investigate the wonders of the place.

We next visited the sulphur banks at the north-west corner of the crater. A good path led us there over a tract of decomposed lava, on which grew ohelo bushes, a species of whortleberries which, in the days of Hawaiian superstition, furnished offerings to Pele, the goddess of the volcano. The banks were some thirty feet high, and perhaps four hundred feet long and seventy-five feet broad. The ground was rent by fissures through which the smoke and vapor were continually ascending. We could hear the roaring of the fires beneath, and the vapor ascending through the fissures was too hot to be endured. The banks were covered with sulphur, and some of the crystallized specimens which adhered to the rocks were beautiful. We found specimens of sulphate of ammonia. Salts are sometimes gathered here in considerable quantities, and used for medicine. Strong, but dirty.

We then descended into the crater of Kilanea from the south side, not without difficulty, for the banks are steep. There had been a great deal of travel, so that the path was well defined, and we reached it in safety, and paused on the edge of this fearful pit, one thousand feet deep on this northern side. The north part of the crater had the appearance of a lake three miles square frozen over, thawed in part, and the huge cakes of ice driven by the wind till quicted by another cold night. The whole area had been a mass of melted lava which had been boiled and dashed violently against the sides of the crater, which are here perpendicular. In cooling they had left huge slabs of lava, some lying flat, others edgewise, and some piled on each other. Over these we walked with caution, as there were many fearful crevices, some so wide that we leaped them with difficulty, and very deep. After walking about two miles we reached a lake or chaldron in vigorous action. It was sunken some twenty feet, I judge, below the bottom of the crater. We stood on the ledge above, and for two hours watched the playing of the fearful element below. At one time there were three fountains playing near the outer edge of the lake boiling with intense heat, and throwing their jets high in air, like the surf breaking on the shore. Then, again, nearer the crater of the lake, a bubble would rise to the top or surface of the crater and break. Then another and another, till it became a spot, say a rod square, of boiling lava throwing its jets higher and higher, and increasing in size, till quite a large area would boil and roar and throw its angry waves on every side, and to the height of perhaps fifty feet. Then it would subside gradually, till in a few minutes all would be quiet. At another time the whole area seemed to be in motion, and moving in several directions, meeting, overlapping each other, till, opening in some particular place, huge cakes of hardened lava would be sucked in and disappear, as would a sheet of paper in a furnace of fire. The sight was grand and fearful, and we left with admiration of the dread power which kindled and sustained these fearful internal fires. No thoughtful man

can look upon this display of the power of God without awe. Well is it said that our "God is a consuming fire," and that "it is a fearful thing to fall into His hands." May we, one and all, be prepared for the day of God which seems to be prefigured by the fires of the volcano. More anon. Yours, with much respect,

J. S. GREEN.

*For the New England Farmer.*

#### FARM NEATNESS---PREMIUMS.

Neatness no farming! Why not, Mr. Editor? Is not the farmer one of the "lords of creation," and should he not be a pattern of every thing that is neat, honest, high-minded, upright, true as steel to principle, whose word is a bond, and whom society can illy afford to lose? Neatness in farming! where can a better field be found for the display of this virtue than on the farm? To make out my case, I will ramble over a few things. In reading over the different reports of our county agricultural societies, one thing in particular has struck me as decidedly wrong in the arrangement of their premium list. I mean this: Here are two men in the same town, and it may be, side by side. One has the most ample means at his command for the purchase of the most approved implements, manure and help; everything about his farm is conducted on a liberal scale of expenditure. With ample means at his command, everything about his farm is accomplished in the most thorough manner. Now for the neighbor. He may hold his farm free from debt, but probably not—no means at command, but his two willing hands, and a clear brain; with these he goes to work to obtain the capital necessary to bring out the resources of his farm, and he does it. Comparing his farm with what it was when he first took hold of it, it would scarcely be recognized; improvement and thrift is stamped upon every field, fence and building; a diligent hand and a thinking brain is everywhere apparent. These two men offer their farms for premiums; which of the two usually gets it? Not the latter, though taking into consideration all the circumstances attending the two farms, his is as far ahead of the former, as the difference was between their purses at the commencement. The latter may possibly get the second premium awarded him, though justly entitled to both. Is there any fancy about this? Read over the different reports for the last five years, and not only will this be found generally true, but it will hold good in regard to many other things. For instance, what is to prevent farmer number one from producing a premium crop of corn or carrots? Money goes a long way in farming, as in everything else; it is a power in itself considered. Let any one interested, look over our own Norfolk County agricultural reports from its first show down to the last, and they will please observe that the great bulk of premiums have been awarded to a very few persons. There is a desire to see the whole premium business placed on a more just and equitable plan, though, for aught I know, it may be impossible to better the present system. I am in doubt about it, however. I wish to see our societies hold out greater encouragement to the smaller and poorer class of farmers, with a reasonable prospect of success to them.

But to my text. Neatness in farming! Is it possible for a farmer to be successful in his operations, without neatness, system, and a place for every thing, and every thing in its place? and he should see that these things are carried out by each and every person about the establishment. It takes less time to be neat and systematic, than to be slovenly, and a "hilter skilter" method of doing things. There is a charm about a neat, tidy, orderly looking farm, however humble the buildings may appear, which always pleases. I do not wonder that many farmers' sons hurry to be off from the old home; its appearance, compared with the city and its surroundings, either from what he has seen, heard or read, disgusts him. He longs to be somebody, and to be thought something of, which he feels he never will be, as long as the old farm remains in its present condition. If parents expect to keep their sons and daughters at home, they must strive to make that home the happiest and pleasantest place in all the world; and if this is done, they will remain at home and love it, because it is lovely. There is an instinctive love of the neat and beautiful, in every human bosom; a child appreciates this long before it can talk. Now, ye farmers, make your homes pleasant, and have every thing about your establishment arranged with taste, suitable to your means. Consider no cost too great, which makes home happy, and your wife and children contented. It is not all money that is wanted to accomplish so desirable an end. A piano and costly furniture will not do it, though all proper enough under some circumstances; but it is the thousand and one little and great things which all must attend to in-door and out. O, for a pen for the people, which would arouse them to an appreciation of the blessings and privileges which surround them, particularly in the case of the farmer.

*King Oak Hill.*

NORFOLK.

#### NEW PUBLICATIONS.

MILCH COWS AND DAIRY FARMING. By CHARLES L. FLINT, Esq.

We have before us a new edition of this popular work, which "comprises an account of the breeds, breeding, and management in health and disease, of dairy and other stock; the selection of milch cows, with a full explanation of Guenon's method; the culture of forage plants, and the production of milk, butter and cheese; embodying the most recent improvements, and adapted to farming in the United States and British Provinces," &c.

This work contains a large amount of information which must be valuable to most persons engaged in stock-raising, or in any department of the dairy. It is illustrated with numerous engravings of some of the finest cattle of the country, is well printed on thick, fine paper, and will be worth many times its cost to most farmers who do not own any similar work on the subjects considered. Published by Crosby, Nichols, Lee & Co., Boston.

THE HORTICULTURIST for June is an interesting and valuable number.

### THE DRAGON-FLY, (LIBELLULA.)

This is the interesting little insect generally known throughout New England as "*The Devil's Darning Needle*,"—of whom all country children have heard as the "critter" that would come and sew their mouths up if they indulged in making naughty speeches. The French call them *Demoiselles*, and the Germans, *Wasserjungfern*, (Virgins of the Water.)

JAEGER, in his *North American Insects*, says the dragon-flies are hardly ever seen at rest, but are in continual motion, flying past us almost as



quick as lightning, and winging their way through the air, over gardens, meadows, rivulets and ponds. The water is their birth-place.

"Instead of being mild and gentle, like the butterflies or other winged inhabitants of the air who draw their nourishment from fruits and flowers, these insects are savage beasts of prey, merciless assassins, who plow the airy waves for no other purpose than, falconlike, to catch with their claws all kinds of winged insects that they meet, and devour them with their powerful jaws.

"It is, however, in this, their murderous character, and rapacious habits, that their chief use to man consists; for being themselves directly incapable of injuring him, they rid him of insects that are directly capable of annoying him by biting and stinging. Thus, if a few dragon-flies be shut up in a house for only a short time, they will effectually purify it of all flies, mosquitos, or other troublesome blood-suckers.

"The dragon-fly, which may be handled by man with perfect impunity—for it cannot bite or sting, or poison him—is often a source of terror in a house or garden, where it might be extremely useful in destroying mosquitoes if allowed to remain."

These insects are not only useful to man in destroying those that devastate his crops and annoy his hours of repose, but they are exceedingly interesting in some of their habits, and especially in that of securing their food. Please listen:—

In a calm summer afternoon towards the last of June, or in July, at about five o'clock, sit down on the bank with your face to the West, and have a hill of corn or some other springing plant between you and the setting sun. What do you see? Not anything. Observe yet more closely. What was that—a shadow? Again and again—it cannot be a shifting shadow, it is too rapid for that. See! it passes quicker than lightning, if possible! Look a little farther off. Ah! I see it now—there is the Dragon-fly, poised in the air, apparently as motionless as death, with

wings outstretched, just as they are represented in the engraving above. What can he be doing, so motionless, hanging in the air! He is—but he is gone! What could have struck him out of existence so suddenly? Look on the other side of the corn. O, there he is, just as still as ever. He is watching his prey. Now look between yourself and the sun and you see insects darting off from the hill of corn, so small that the eye

would not discern them unless in that peculiar light. They dart from the corn, make a few gyrations and back again, that being the boundary of their travels, and, alas, too often the boundary of their little life. The dragon-fly does not rest suspended in the air without an object—and every time he passes back and forth, one of the tiny dwellers upon the corn goes to make up his evening meal.

Will not these suggestions induce many to study the habits of, and become more familiar with, the beautiful and harmless dragon-fly?

### THE THISTLE BUTTERFLY, OR PAINTED LADY.

This insect will probably be recognized by most readers, as a gay, beautiful thing. It is very common in the United States and in Europe,



where it goes by the name of the "Painted Lady." It sometimes appears in such numbers that their

larvæ devour not only the leaves, but also the blossoms of the thistle and burdock. As soon as one of these caterpillars issues from the egg, it draws the points of two leaves together, fastens them with a silky thread, conceals itself therein, and eats the substance of it until it attains its growth. We are not aware that it injures any of our crops.

#### THUMB AND FINGER PRUNING.

Now is the precise season, say from June 15th to July 10th, to perform one of the most important operations in the apple orchard; that of removing the young shoots which started in the spring, and have made a growth of from one to six inches in length. These shoots start out mostly on the upper side of the large branches, grow with great rapidity, and if not arrested early, form that part of the tree which it is the most dangerous to cut off. If they are allowed to grow two or three years, they are sometimes an inch through at their base, and cannot then be removed by saw or knife without leaving an ugly scar upon the tree, and the wound becomes a dangerous one, unless made when the tree is in a favorable physiological condition, and it is treated with proper skill.

It is *natural* for apple trees to throw up a thick, bushy head. Whoever saw one that sprang from the seed in a pasture, and that had not been fashioned by the hand of man, that presented any other form? This original impress seems to retain something of its power even after the tree has been budded or grafted, so that it requires the constant watchfulness of the orchardist to train his trees into those forms that make them the most convenient for cultivation, and for the harvesting of their fruit. In order to do this it must be remembered that all our budded or grafted trees are in an artificial condition; they have lost much of their original character by the process of moulding them to the will and purposes of man. It is just so with the peach, plum, potato, celery, and many other plants. In changing them as we have, they have probably lost something of their native hardihood and vigor, and will always require more attention than trees in their natural condition.

The summer pruning is a part of the artificial process.

There should be little use for the saw or knife in an orchard less than forty years old, unless in case of accident; after that time, or perhaps ten years later, some of the limbs begin to die, and then these tools become necessary. The pruning should be performed when it can be done with the thumb and finger,—and now is the time to do it. Pass through the orchard, examine all the

limbs that start directly from the main stem of the tree, and wherever young shoots are found rub them off, being careful to take them so close as to prevent an after growth. They should all come off, with a single exception, viz.:

If the tree, by accident, unskilful pruning, force of wind, or any other cause, has lost a proper balance, if one side has more branches than another, or if the top is open, and too much exposed, then leave one of these young shoots, and train it to occupy the very place you wish to have filled.

By this process of pruning, you will rarely need to use the knife; the trees may be brought up smooth, and with symmetrical form, and they will not be full of internal wounds to weaken them, and hasten their decay in later years.

Let us urge upon the young orchardist, at least, to try this method now, and if the knife and saw are necessary, now is the time to use them.

*For the New England Farmer.*

#### MOWING MACHINES.

Notwithstanding the many trials of these implements, and the many varieties before the public, it is not easy for a person to satisfy himself, what kind of machine he had better buy for use on his farm. I was struck with this consideration, on reading the remarks of Mr. N. W. Brown, of Topsfield, which came to hand to-day, in the monthly *Farmer* for June, p. 280. Mr. B. I know to be a practical, sensible man, and he is situated on an experimental farm, well adapted to try implements, if not to produce large crops. He appears to have a preference for the Manny machine, which he learned in the use of it at the West. I know of good farmers, hereabouts, who have a like preference. There are others who prefer Allen's, and some who think there is nothing that will compare with the Buckeye. Can't you, Mr. Editor, honestly inform the public of Massachusetts, what kind of mowing machine is best adapted to their use? If you will do this, you will save much perplexity of thought, and much of the money of your brother farmers. P.

June 4, 1860.

REMARKS.—No, sir, we cannot say which is *the best* mowing machine among all that are used. We have had practical experience with only three or four out of the dozen in use, and do not feel justified in giving opinions of them until we have used them under our own hands. If we were perfectly clear in opinion as to which the best mowing machine is, in all respects, we should certainly say so, without "fear, favor or affection."

☞ Pigeons are very plentiful in the northern part of Michigan. One man at Grand Rapids has shipped 164 barrels to the eastern markets this spring, paying over \$1500 for dressing, express charges, &c. Another person has shipped 52 barrels, making over 100,800 birds. At one shot, 120 were brought down while roosting at night.

## AN AXE TO GRIND.

Not one of your political ones, by any means, of which we hear so much just now, but a real cast steel chopping axe, that has stood in the wood-shed and been used whenever any of the men folks or the women folks have had occasion to hack, hew or split, during the past winter. Just see how blunt and thick the "edge" is. What a grinding it must have!

But the grindstone—that is as bad off as the axe is. True enough, you did resolve, as your boys turned so reluctantly, and looked so tired and disheartened, while grinding the scythes last haytime, that you would have a better stone with some of those friction rollers, and, perhaps, with a treadle so as to be turned by the foot. But you have not got it yet. That same little, worn-out, hard-faced grindstone stands there still, with a frame so low that a small boy must bow his shoulders almost to his knees to reach the crank which turns a gudgeon that must be kept wet or it will squeak and groan dreadfully. What a thing that is to grind a dull axe on. What a place, too, for your boys to take first impressions of agricultural labor, such an old grindstone is!

If the single experience of young Ben. Franklin, one cold morning, in grinding an axe, has added to the vocabulary of politicians one of their most expressive phrases, who will venture to compute the number of sea voyages that have been planned by farmers' boys at the crank of some old grindstone, or of resolutions formed there to be merchant, mechanic, peddler, anything, so that they shall not be obliged to grind dull axes on miserable grindstones.

Much is said, now-a-days, and well said, about the duty of striving to make farm-life as attractive as possible. But it seems to be one of the weaknesses of human nature, in this as in other cases, when looking about for the means to be used in securing a desired object, that we are prone to neglect those little every-day ones with which our work might be easily and cheaply commenced, and to fasten our eyes and hopes on something great and striking, and stand still till it comes; in plain words, the rickety, worn-out grindstone is neglected and overlooked, while we are waiting for the mowing-machine or the steam-plow to relieve us from the drudgery of hard work, and to make our business agreeable.

But, as yet, axes, scythes, shovels and hoes, are used upon the farm; and our argument for a good grindstone will be appreciated by all who know the difference in the use of these implements when sharp and when dull.

In looking over the premises of our agricultural friends, admiring improvements that have been made, and discussing those that are projected, we instinctively look for the grindstone. If

we find it an ancient, sad-looking affair, with wooden gearing, and leaning, it may be, against the wall for support, we feel like saying what the proprieties of the occasion would not warrant. But if the grindstone is nicely housed, hung on well oiled rollers, and with a treadle, so that one man can sharpen a tool without raising his neighbors or coaxing his wife to turn "just one minute," we feel assured that all is right. Depend upon it, as goes the grindstone, so goes the whole estate.

*For the New England Farmer.*

## FARMING IN KANSAS.

Still but very little rain. But we are now having our March winds, perhaps April showers will soon follow. Very few gardens have, as yet, been planted, May 29, and if the rain does not befriend us, we shall be compelled to forego our vegetable dinners this season. The Yankces here do not relish the idea of going without the Yankee dish of "biled vittles," and the probability of it makes them pray most earnestly for rain. Principally corn and potatoes have been planted, and then but half of the usual quantity will be raised this year. Wheat and oats entirely destroyed. It is lamentable, as a large quantity was sown last fall. We seem to suffer more from the drought in Atchinson county than elsewhere, as reports from other counties speak of some rain, and corn to be growing finely. Many are the probable reasons given for this dryness, and the more ignorant and superstitious charge the telegraph, which has lately been passed through this country to Atchinson, with preventing the rain from falling, and so insist upon having the wires pulled down; for, say they, "when the telegraph was first put up in Missouri, thar' was nary rain the mor'n two year, and then the people pulled for wires down, and we had a powerful rain right away. Telegraph wires aint of nary usc, anyhow." It is most amusing to hear their arguments, confirming their belief, that the telegraph wires have a visible effect upon the atmosphere.

"Is Farming Profitable?" I have had my attention much excited by the number of articles upon this subject in the *Farmer* lately. Mr. Pinkham labors earnestly and intelligently to prove that farming is not profitable, and that every farmer loses \$10 per acre for every acre of corn he raises. A number of other correspondents differ with him, and prove that they make a profit of \$14.72 to \$25 per acre.

Mr. Pinkham is certainly in a bad fix, and I think that he is out of his element, that farming is not his *forte*, and that he was cut out for a shoemaker, or something else better. Or, perhaps, he does not understand farming it upon an economical scale, and therefore labors day after day, under the conviction that he is losing money, as he certainly is, if he does not understand his business, and does not labor cheerfully and willingly. If he expends \$47 upon one acre of land and receives only \$37 back, he certainly has taken the "back track." I agree with him in his assertion of not coining wealth at his rate of farming, but think another correspondent, "Investigator," cannot get rich much faster, if he expends even

\$37.54 upon one acre of land. He must work very hard and enrich the soil profusely with the sweat of his brow to realize a profit of \$14.72 after that great expenditure. I showed the article to an old farmer, and after he had carefully perused it, he bluntly exclaimed, (I do not wish to offend,) "That's all a lie, he would sink a fortune at that rate." "Investigator" must either be a very slow worker or have a very poor team, if it takes him one day to plow one acre of land. Here we can easily plow three acres. His account gives one man one-half day to mark off one acre, when one man can mark off three acres here. "Done easily," the farmers say. Hoeing, plowing and hilling is unnecessary work here. "Investigator" estimates the wear and tear of tools at \$4 per acre. He must be "death" on tools, or buy those of the poorest material and metal. It is an item we seldom estimate here, except in breaking prairie, and then it costs \$2 per day. Yet we think that 50 cents will pay all damages done to tools on cultivated ground. But here is our estimate of a field of three acres:

THREE ACRES OF CORN.	Dr.
To one man and one team of horses one day plowing.....	\$3.00
To one man and one team one-half day harrowing.....	2.00
To one man one-half day marking, (easily done).....	1.00
To planting and seed.....	1.00
To cultivating.....	2.00
To hauling in.....	1.00
To cutting up.....	2.50
To three days' husking.....	3.00
To wear and tear of tools.....	.50
To shelling and marketing at 5 cents per bushel.....	9.00
	<u>\$25.00</u>

The very lowest average of corn is 60 bushels per acre, although we often raise 75 bushels per acre. When corn was plenty, it could be bought at the field at 30 cents per bushel; now it is worth 75 cents. So we will raise it at the present price:

THREE ACRES OF CORN.	Cr.
By 180 bushels of corn, at 75c per bushel.....	\$135.00
By fodder sold.....	5.00
By 10 loads of pumpkins, at \$1 per wagon-load.....	10.00
By 10 bushels of soft corn, at 80c per bushel.....	8.00
	<u>\$158.00</u>

I make the total cost of three acres of corn to be \$25 and the receipts for the same \$153, leaving \$128 profit from the three acres. This may seem enormous to an Eastern farmer, yet it is true, and I venture to assert that a poor farmer can realize \$37 profit from every acre of corn he cultivates.

A farmer adjoining has 600 acres of land. He cultivates 140 acres in corn, and asserts that it only costs him \$5 the acre. He cultivates a large vegetable garden also, and employs four men to cultivate the whole, paying them \$15 a month. I have estimated the labor at \$1 per day in my account. This man sold at the field last fall 2,700 bushels at 30 cents per bushel, and has sold corn at various prices during the winter. If he had kept all of his corn till now he would have realized a large sum. He has also wintered 40 head of cattle, 20 hogs, 2 horses and 4 mules.

Give a man two good horses, and he can cultivate 40 acres. A very old man near by cultivates 25 acres of corn, and says, "'taint hard, neither."

He has quite a quantity of stock to attend to also. Seventy-five miles from the river, corn is selling at 30 cents per bushel, and there, they say,

corn costs 12½ cents per bushel to raise. Fodder we seldom sell. We put up a large quantity of hay. After the ears are stripped from the field, each farmer turns his whole stock into the field and there they remain until they have eaten up everything clean. So farming in Kansas is certainly profitable.

SUSIE VOGL.

Sumner, K. T., May 29, 1860.

#### AGRICULTURAL LECTURES.

We have before us a pamphlet of nearly 200 pages, giving the outlines of the lectures delivered before the Agricultural Convention at New Haven in February last. They were reported by HENRY S. OLCOTT, Esq., and published at the time in the N. Y. *Tribune*. Mr. O. has since corrected his notes, and after a revision by the lecturers themselves, they are brought together in this form for general use. They contain a large amount of valuable and reliable matter which ought to be extensively before the people.

In one of Judge FRENCH's lectures upon Drainage, we notice an item against the slovenly and wasteful practice of *open ditches* which we cannot well refrain from laying before the reader. The extensive operations by draining, of Gov. Hammond, of South Carolina, were alluded to, and the reporter continues: "Two acres, if I recollect aright, of this corn-field measured ninety-eight bushels each, and the plantation crop amounted, in the aggregate, to about 56,000 bushels. This was raised on a swamp, just like many thousand other acres in South Carolina, but rendered thus fertile by open ditching. Gov. Hammond's experience goes to corroborate what yesterday Judge French said against open ditches. In one season, only, because of neglect to clean them out, the ditches filled up, so that on the 1500 acres the crop was shortened 30,000 bushels, and in one year more, a further loss of 15,000 was experienced."

These "Outlines" are published by Saxton, Barker & Co., New York, and we hope will find their way into the homestead of all our farmers.

#### ABOUT RINGBONE.

I noticed in a late number, an inquiry for the cure of what is called a ringbone, from a correspondent who had a fine mare troubled with one for something over a year, and the answer was, that there was no cure for a confirmed ringbone.

Now two years ago this winter, I had a fine colt that had a ringbone on each of its hind feet, and was so lame some of the time, that I could hardly get it out and in the stable. I did not do anything for it till spring, and they got so bad that the colt had to walk upon its heels, with its feet turned up, and I supposed that she was almost worthless. Finally one of my neighbors told me that he had a remedy for a bone spavin, and it was said to be a sure cure for ringbone, and wished me to try it.

It was this: Take common salt, and pound or grind it as fine as you can possibly get it, and mix it with spirits of turpentine enough to make it something like paste, and rub it on the ringbones (or spavin) once in two or three days, for three or four times, and if they have not been of too long standing, I think you will effect a sure cure. This colt of mine had but three applications of this medicine, and I then turned her out to pasture, and she soon grew better, and in a short time was entirely free from lameness, and has been ever since. She is now coming three years old, and has as sound feet as any colt, though there are some bunches to be seen yet, but I think in two years more, they will entirely disappear.—*Cor. Country Gentleman.*

### SCHOOLS OF AGRICULTURE.

BY JUDGE FRENCH.

There is much that can never be learned from books or oral teaching. No man can learn how to be a horseman, or swimmer, or skater, in any other way but by practice. So it is with all that belongs to the practice of the art of agriculture. To be able to direct others with authority, the farmer should have skill in all the manual processes of farming, to hold the plow, or to drive, to use the scythe, the ax and the hoe. There are a thousand things to be learned by the farmer in every department of his business, which can be learned only by actual observation on the farm, and which may be suggested in considering the plan of such an institution as we recommend. It may be premised, in the outset, that an experimental farm makes a part of almost every system of agricultural instruction that has ever been adopted in the old world, or projected in the new.

Dr. Hitchcock says, in his report: "With a very few exceptions,—I do not recollect any save the University of Edinburgh,—a farm, or at least a few acres of land, is connected with the school."

A school of agriculture with an experimental farm, we propose as the one thing especially needful in our present condition, to be established as soon as practicable in each county.

We should abandon, for the present, the idea of a splendid university, where everything, including the dead languages and abstruse mathematics are to be taught.

The existing institutions of learning are sufficient for Latin and Greek, and mathematics in general, and common schools, with perhaps some modifications with reference to preparation for schools peculiarly agricultural, are laying the requisite foundation for more advanced education. While we admit the utility of lectures and of farmers' clubs in the dissemination of knowledge among those who are already farmers, and therefore full-grown men, we conceive that they furnish no substitute for schools for the training of boys and youth.

Lectures upon science or art may amuse a general audience; but only they who have prepared their minds by previous training, can profit much by knowledge in so condensed a form. Farmers, as we now find them, even in Massachusetts, have not had the discipline to enable them to apprehend by a mere statement, the principles of chemistry, of geology, of physiology, or even the pro-

cesses of subsoiling, drainage, and the like, which may be made very easy to a lad of eighteen, by a regular course of instruction. In agriculture, as in other studies, we must educate in youth; and farmers' clubs, however useful, must be limited rather to the diffusion of the knowledge of facts than of principles. Both lectures and farmers' clubs are modes of *instruction* rather than of *education*, if we may take the distinction indicated by the derivation of the words, methods of pouring out knowledge upon those not well prepared for its reception, rather than of deducing it from principles which are fixed landmarks in the mind.

We see no agency yet in operation which can reach the class whom we have in view. Our aim is to meet the present want of the community, to give aid to a numerous existing class of young men, who desire more knowledge of their business of agriculture, and know not how to obtain it. There are two obstacles in the way of grand agricultural colleges, which have been met, it is believed, in every attempt at their establishment thus far in this country. First, the want of competent teachers. Secondly, the want of pupils. There are few scholars with special qualifications to take charge of agricultural professorships, and few young men ready to devote their lives to a long and expensive course of study looking exclusively to agricultural life.

There are many young men, of good general education, who wish to learn thoroughly the art, with profit, who have no means of advancement in the knowledge of their peculiar business. How can we teach them the best methods of managing their farms? The true answer is, by showing them the best methods of cultivation, and teaching them to perform with their own hands the processes connected with them—by making them thoroughly acquainted with the best farm implements, the best farm buildings, the different breeds of live stock, and their various qualities, by teaching them system and habits of careful observation, and by making them understand the reasons of things, or the *principles and science of husbandry*."—*Essay in Transactions of Mass. Ag. Society.*

### A NEW SOCIETY.

A new Society, called "*The Needham Horticultural Society*," has recently been formed in that town. Its objects, as stated in its Constitution, "shall be the promotion of Horticulture, and incidentally, Agriculture, Floriculture and general improvements. Its plan of action shall be by meetings, discussions, lectures, correspondence, exhibitions, premiums, prizes, planting of trees, gathering of statistics, and making record of important local events."

The Society has been organized by the choice of the following gentlemen as officers:

*President*—Hon. E. K. Whitaker.

*Vice Presidents*—C. E. Keith, Rev. A. Harvey, Galen Orr, W. M. Stedman, W. N. Eays, Jona. Avery, J. M. Colcord, E. P. Hollis, J. W. Shaw, Esqs.

*Treasurer*—Geo. Howland, Esq.

*Secretary*—H. N. Bacheller, Esq.

*Standing Committee*—G. W. Palmer, J. M. Harris, O. E. Bowen, A. Eaton, John Minchin, C. H. Dowing, M. Newell, M. S. Scudder, Chas. Blaisdell, Esqs.



*For the New England Farmer.*

### THE CATTLE DISEASE.

BY JUDGE FRENCH.

We have somewhat to say to the farmers of the country on this topic. Travelling daily as we do in the cars, reading all that is published on the subject, and watching with careful interest the evidence presented to the legislative committees, we have good opportunity for gaining information, whatever use we may make of our privileges. It requires some equanimity to hear with serenity the stupidity of a portion of the community, who ought either to inform themselves, or hold their peace on this vital question. Stupidity is undoubtedly the unpardonable sin. A lively, wide-awake, progressive sinner, we have some hope of; but a dogged, mulish, thick-headed old fogey, who rolls himself up in a heap, like a porcupine, shuts his eyes, and sticks out his quills in all directions, deserves such treatment as John Quincy Adams advocated for the Chinese: a little smell of fire and gunpowder, or one of its ingredients, to bring him into sympathy with the breathing, moving world.

Grave and respectable old physicians at the State House, and elsewhere, suggest doubts of the contagious nature of this disease, and question whether there is any necessity for killing, or even isolating the diseased cattle; and editors of political papers, who are anxious for occasion for complaint against somebody who is in public service, echo the idea, and howl their jeremiads over the graves of the slaughtered. Then the cry is taken up by small politicians and second-rate doctors in the small villages where the disease has not appeared, and knotty questions of constitutional law, and knottier questions of the constitutions of cows and oxen, are gravely discussed, and sage doubts are suggested of the wisdom of the course of the Commissioners and the Legislature.

"There is not sufficient evidence," say the grave doctors, "that the disease is of a contagious, or infectious character," and so there should be no commissioners with power to interfere with the cattle of our citizens. "And besides," says a friend at hand, by way of helping along the opposition, "I believe these Commissioners spread the disease themselves, by carrying it in their clothes."

"What need is there of the State interfering?" asks another; "the farmers can take care of their own business as well as traders and mechanics; they will be sharp enough to keep the disease from spreading, without any help." "And what right," chimes in a third, "has anybody to mark my cattle with a hot iron, so as to spoil my sale of them in the market?"

A large class who are far enough from the disease to be safe, are surprised that the whole country is so excited about a disease that is not known to be contagious, and from which more than half the cattle would recover, under judicious treatment, either by putting them into warm stables, with good keeping, so as to enable them to resist consumptive tendencies, or by keeping them in open, well-ventilated, old-fashioned barns, "on low diet;" they don't exactly agree which. One philosopher suggests, in a daily paper, that the disease probably is induced by the cattle feeding on grass raised with those disgusting manures from slaughter-houses, and the like; but he fails to give us any cologne or rose-water substitute for these disagreeable substances.

Now, what are the facts as to the contagious nature of this disease? If any reliance can be placed on human testimony, every case reported in Massachusetts can be traced to actual contact or actual association with animals known to be diseased, and can be traced step by step back to the cow imported from Holland by Mr. Cheney.

A little more than a hundred years ago, the disease was imported into England from Holland, and in six months 30,000 cattle died of it in Cheshire County, and more than 40,000 in Nottinghamshire. Parliament treated it as a contagious disease, and paid out nearly \$500,000 in a single year, to compensate for cattle killed under its authority. During that year 80,000 head of cattle were killed in England as infected, and twice that number died of the disease, and by such energetic means the malady was finally eradicated. In Africa, according to the interesting account by Rev. Mr. Lindley, the same disease has been raging now for several years, and is only stayed by the entire isolation of the sound districts. It is there known and treated as contagious.

In 1857, 140,000 head of cattle were slaughtered or died in only forty-three villages in Holland, and there too the disease is regarded as contagious. Regarding the disease as contagious and alarming, the Governor of Massachusetts has specially convened the Legislature to adopt measures to check its progress, the Commissioners have unanimously recommended measures for meeting the disease as contagious, and the joint committee of the two houses has, after the fullest investigation, reported bills in conformity with this view. These bills, with slight amendments, will doubtless become the law of the State, before these words are published. The States of Ohio, of Maine, and of Connecticut, have each sent Commissioners to this Commonwealth to learn of the disease, and of the best modes of prevention or remedy; and the Legislature of New Hampshire has invited a distinguished member

of the Massachusetts commission, Dr. Loring, to address them on the subject.

What now is the duty of good citizens in this matter? It surely is to give every aid in their power to the execution of the laws just enacted. A man who, with the evidence now before the public, will contend that this disease is not to be met and treated as contagious, ought to be shut up in quarantine till he recovers from so dangerous a heresy. We believe that the Governor acted wisely in convening the Legislature, for in no other way could knowledge on this subject be so well collected or disseminated, as by a thorough public investigation, a publication of the evidence in ten thousand copies, as has been ordered, and the return of the members to their rural homes, with full knowledge of the nature of the disease, and of the measures adopted to limit and exterminate it. The Legislature has done itself honor by the course adopted, which has been marked with energy and unanimity in all that is essential. On the important points as to whether more or less power should be conferred on the Commissioners, or how appraisals should be made of animals or other property taken for the public good, lively debates have sprung up, but upon the expediency of adopting the most stringent and energetic measures to exterminate this terrible scourge from the Commonwealth, there has appeared to be great unanimity.

In the present state of public sentiment no person will purchase, either for breeding purposes, or for beef, or for the dairy, and no farmer will take as a gift, any animal from an infected herd. What, then, is the value of such a herd? What can be done with it? Let those answer who complain of the course that has been adopted in Massachusetts.

**WALKING HORSES.**—A correspondent of the *Country Gentleman* suggests the offering of premiums at annual county fairs, for fast walking, as well as fast trotting horses. He says he knew a man who kept from two to four teams at work on the road, and never allowed them to trot at all; yet he made the distance in quicker time than his neighbors who made their horses trot at every convenient place. He said that when a horse walked after trotting, he walked much slower than his common gait, if kept continually on the walk, and thus lost more than he gained by trotting.

**CURIOUS EFFECTS OF CAMOMILE.**—A decoction of the leaves of common camomile will destroy all species of insects, and nothing contributes so much to the health of a garden as a number of camomile plants dispersed through it. No greenhouse or hothouse should ever be without it, in a green or dried state; either the stalks or the flowers will answer. It is a singular fact, that if a plant is drooping and apparently dying, in nine cases out of ten, it will recover, if you plant camomile near it.

## YOUTH'S DEPARTMENT.

### THE POWER OF READING.

Benjamin Franklin tells us, in one of his letters, that when he was a boy, a little book fell into his hands, entitled *Essays to do Good*, by Cotton Mather. It was tattered and torn, and several leaves were missing. "But the remainder," he says, "gave me such a turn of thinking as to have an influence on my conduct through life; for I have always set a greater value on the character of a doer of good than any other kind of reputation; and if I have been a useful citizen, the public owes all the advantages of it to the little book." Jeremy Bentham mentions that the current of his thoughts and studies was directed for life by a single phrase that caught his eye at the end of a pamphlet, "The greatest good of the greatest number." There are single sentences in the New Testament that have awakened to spiritual life hundreds of millions of dormant souls. In things of less moment reading has a wondrous power. Geo. Law, a boy on his father's farm, met an old unknown book, which told the story of a farmer's son, who went away to seek his fortune, and came home after many years' absence, a rich man, and gave great sums to all his relations. From that moment George was uneasy, till he set out on his travels to imitate the adventurer. He lived over again the life he had read of, and actually did return a millionaire, and paid all his father's debts. Robinson Crusoe has sent to sea more sailors than the press gang. The story about little George Washington telling the truth about the hatchet and the plum tree has made many a truth-teller. We owe all the *Waverly Novels* to Scott's early reading of the old traditions and legends; and the whole body of pastoral fiction came from Addison's *Sketches of Sir Roger DeCoverley*, in the *Spectator*. But illustrations are numberless. Tremble ye who write, and ye who publish writing. A pamphlet has precipitated a revolution. A paragraph may quench or kindle the celestial spark in a human soul—in myriads of souls.

### WHERE ALL THE TOYS COME FROM.

The vast majority are made at *Grunhainischer*, in Saxony. The glass comes from Bohemia. The bottles and cups are so fragile, that the poor workman has to labor in a confined and vitiated atmosphere, which cuts him off at 35 years of age. All articles that contain any metal are the produce of Nuremburg and the surrounding district. This old city has always been one of the chief centres of German metal-work. The workers in gold and silver of the place have long been famous, and their iron-work unique. This specialty has now descended to toys. Here all toy printing-presses, with their types, are manufactured; magic lanterns; magnetic toys, such as ducks and fish, that are attracted by the magnet; mechanical toys, such as running mice, and conjuring tricks, also come from Nuremburg. The old city is pre-eminent in all kinds of toy diablerie. Here science puts on the conjurer's jacket, and we have a manifestation of the Germanesque spirit of which their Albert Durer was the embodiment. The more solid articles which attract boy-

hood, such as boxes of bricks, buildings, &c., of plain wood, come from Grunhainscher, in Saxony.—*Once a Week.*

**A HARD-HEARTED SCHOOLMASTER.**—A German magazine recently announced the death of a school-master in Suabia, who for fifty-one years had superintended a large institution, with old-fashioned severity. From an average inferred by means of recorded observations, one of the ushers had calculated that, in the course of his exertions, he had given 911,500 canings, 124,000 floggings, 209,000 custodes, 136,000 tips with the ruler, 10,200 boxes on the ear, and 22,700 tasks by heart. It was further calculated that he had made 700 boys stand on peas, 6000 kneel on the sharp edge of wood, 5000 wear the fool's cap, and 1700 hold the rod. How vast (exclaims the journalist) the quantity of human misery inflicted by a single perverse teacher!

## LADIES' DEPARTMENT.

### A GOOD-NIGHT.

Sleep sound, dear love! Though the winds be high  
And the dark clouds drift through the troubled sky;  
Though the rising waters foam and roar,  
And mournfully howl round the tortured shore;  
Ill sounds from thy slumbers be far away,  
And soft be thy dreams as a summer's day.

Sleep sound! Though the world be weary with fears,  
And eyes that love thee be sad with tears,  
Yet never a sorrow break thy rest,  
And never a pang shoot through thy breast;  
No shadows pass o'er thy closed eyes,  
But their visions be visions of Paradise.

Sleep sound, sweet love! Till the morning's light  
Lead up a new day with its fresh delight;  
Till the welcome sun, as it mounts above,  
Recall thee to duty, and peace, and love,  
To a calm existence, untouched by strife,  
And the quiet round of a holy life!

*Fraser's Magazine.*

### ALARMING INCREASE OF CELIBACY.

This is getting to be an alarming fact to the political economists, and, in an article on the subject, *Once a Week* thus remarks:

The probabilities of marriage of a maiden at twenty are slightly superior to those of a bachelor, and incomparably greater than those of a widow of the same age; but with the lapse of years the ratios change, the probabilities of marriage at thirty-five being, for a bachelor, one to twenty-seven; for a spinster, one to thirty-five; and for a widow, one to five—the attractions of the widow standing to those of the spinster in the surprising relation of five to one—or, perchance, that number mystically representing her comparative readiness to matrimony. Thus the chance of finding happiness and a home diminishes with years.

The growing disposition to celibacy among the young men of this class, though in some measure attributable to selfish and luxurious cynicism, is chiefly due to the irrational expenditure consequent on marriage, and the unattractiveness of

prospective association with women so unlikely, from their artificial habits, to yield domestic happiness. If this celibacy frequently defeats the economical consideration deciding to it, (as it should,) and ends in much immorality and unhappiness among men, how immeasurably evil must be its influence on the other sex; and what a violation of natural law must that social organization be, which so harshly represses the affections, and bereaves so large a class of the support and sympathy they are entitled to from man. Is the Rajapoot pride that slays a female infant, lest in after life it should dishonor its parentage by a plebeian marriage, more cruel than the selfish social system that devotes it to a solitary and weary life of penury and regrets?

### TO KEEP MOTHS FROM CLOTHES.

Nothing moths dislike so much as being disturbed. The clothes, &c., should therefore be taken out of the linen bag, (a pillow-case tied or sewed at the open end is the best,) and well shaken once a month. A bag of clothes left unshaken is like an undisturbed fox covert, where there are plenty of rabbits, to a fox. He won't go away till he is forced to decamp, by being hunted up. Moths can't bear tallow, and if curtains, &c., are put away for any time, I should recommend a pound of the commonest tallow candles to be put in paper, and placed in with them. In the museum of the Jardin des Plantes, at Paris, they told me they used benzoin collas to keep the moths out of the skins of the animals, and not a trace of a moth did I see in their miles of galleries of stuffed beasts. The other day, I was asked what to do with a Crimean sheep-skin coat that had got the moth in it. I had it well shaken, and then benzoin collas rubbed in. It is not the moth that flies about that does the harm to the clothes, so much as the grub from which the moth comes—a white little creature with a red head. I collected several of these grubs from the Crimean coat, and having moistened the palm of the hand with benzoin collas, I put the grubs on it. They began to twist and turn about, and were dead in a second or two. I should therefore recommend benzoin collas to destroy moth grubs when present, and also to keep them away. I have read somewhere, (but I can't recollect where) that cyanide of potassium was fatal to moths, and that they won't go near it. It would be worth trying this; and I imagine the best form to use it, would be to buy some of the soap that photographers use to clean the nitrate of silver stains from their hands, and place it along with the clothes. But, after all, frequent shakings are the best antidotes for moths and their grubs.—*Cor. of London Field.*

**WIFE.**—This good old Saxon word (*wif*) is, after all, the dearest and most sacred word in the whole vocabulary of love. Around it clusters all that is most beautiful, chaste and permanent in the tender passion. Into whatever forbidden paths the heart of man may wander, still it must return at last, to the hallowed name of *wife* for consolation and rest. Any other relation between the sexes, however alluring to the imagination, invariably ends in wretchedness, in shame and degradation.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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NOURSE, EATON & TOLMAN, PROPRIETORS.  
OFFICE...34 MERCHANTS' ROW..

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

# CALENDAR FOR AUGUST.

"All-conquering Heat, O, intermit thy wrath!  
And on my throbbing temples potent thus  
Beam not so fierce!"



AUGUST breathes upon us again like a blast from the desert, suggesting visions of mad dogs, musquitoes, and restless tossings through the sultry nights, on beds apparently stuffed with hot bricks. We who live in the city can't endure it any longer, so we will emigrate to the Isle of Shoals, or Rye Beach, or to whatever place is most "convenient" to our present martyrdom, and there luxuriate in the

cool breath which ocean gives us. We will even sport in the breaking billows, the wonder of all young sharks and alligators who view from a distance this new inhabitant of their native element. But we who live in the country will open our windows to the air, full of the scent of new-mown hay—so much sweeter than that "new-mown hay" you purchase at the druggists, put up in small bottles, and which, by the way, you would "throw to the dogs," (Shakspeare,) if you were to take pains to inform yourself of its ingredients.

"Patchouli" is said to be made of mummies, and it seems quite probable, from the fact that those venerable Egyptians were "put up" in spices. Little thinks that delicate young lady, little thinks that embroidered young man, as they finish their toilets with a drop of "Lubin," that they are suggesting to some of their scientific friends, the Pyramids of Egypt!

But here in the midst of our "rural felicity," we have all the perfumes of all the apothecaries without alloy. There is "musk," and "millefleur," and "sweet pea," and the clover blossoms, now lying low, it is true, but still breathing out a sweetness which would make the fortune of a perfumer if he could only catch it and bottle it up. Amidst it all, the "jolly hay-maker" swings his scythe, and rejoices in such good haying weather, caring little for any degree of heat, short of a sun-stroke. The fact is, there is a breeze out there for him, which doesn't reach us at our window, and, besides, he hasn't time to think much about his sensations.

The farmer's wife, we rather imagine, has a harder time of it than he himself does. Good, patient soul, she doesn't complain, though, as she works hard all day, a hot cooking-stove in doors added to a hot sun out of doors. She washes, and bakes, and irons, and revels in the perfume of soap-suds and boiled cabbage, instead of all those refined odors, before mentioned, which come to the nose of her lord and master.

It would not be strange if so many conflicting and wearisome cares should sometimes wear out her patience, were she a second edition of Job, but oftener than not, she goes about her work cheerfully, getting dinner ready for the "men folks," and setting the table in a cool place, so that they may enjoy their nooning. At night, very likely, she adds to her own duties a part of her husband's, during the busy season, and milks his cows and feeds his pigs for him, and we hope, at least, she gets rewarded with appreciating and pleasant words.

Yet work, although some people seem to have more of it than justly falls to their share, is after all a great preserver of virtue and happiness. At first view, this remark may seem inconsistent with the theory that labor was given as a curse, but the truth is, that although elegant leisure is a blessing, few people are "fitted" for leisure, just

as some people say our colored brethren are not "fitted" for freedom, although freedom is allowed to be a very good thing. By a curious coincidence, one of our good neighbors just passing along, remarks to another just proceeding to hang out her clothes after a Monday's wash, "We are born to labor." We did not hear what number two replied, but she might have said, "It is well we are." For how many men exempt from the necessity of labor, would turn their attention to anything useful or elevating? Some few there are—poets, artists, sculptors—who, impelled by the inspiration of genius, under any circumstances, would make the world wiser, better, and more beautiful, and a few more whom the necessity of earning their daily bread has prevented from cultivating their natural gifts—but to the majority of mankind, *Idleness* is the Devil's harvest-time.

By this means, he gathers in every year great crops of young men, who might be useful in their day and generation. Plenty of money and plenty of time sends them reeling in the broad ways so easy to enter, so difficult to return from. Most men cannot even be left a great deal to the company of their own thoughts. It makes hypochondriacs and suicides. Good, active employment is the best state for man and woman in this present existence—employment which has a definite object in view. Nothing so effectually sweeps away those cobwebs, which are always obscuring the vision with minds of a certain stamp.

Which is the more likely to take cloudy views of life, Bridget, singing over her pans and kettles in the kitchen, or her mistress hemming a cambric ruffle in the parlor? Not Bridget!

These little every-day affairs help one to take a healthy and practical view of life. For example, there is no knowing to what flights of fancy one might be led in musing over a summer landscape like this, did not a field of "waving corn" and a patch of tomatoes call home our wandering thoughts to carnal matters, and then we sigh for a double dose of dog-days, that these useful vegetables may have time to come to perfection. What could be more aggravating than to see, as we have for two years past, a fine bed of promising tomatoes lying pale and sickly, waiting in vain for sun enough to ripen them, till the frost came and blighted our hopes entirely? But let us trust that this month of August, eighteen hundred and sixty, is going to do better things for us,—that the fruits of the earth will be abundant enough to make up for all that beef-steak of which the cattle disease has deprived us, and as Nature delights in compensations, we should not be surprised if our hopes proved true prophets.

**FARMERS, KILL YOUR THISTLES.**—Several years since the writer purchased a farm, and the first

year I sowed oats on a piece of ground which had a crop of corn upon it the previous year, and was greatly terrified to find one-fourth of an acre covered with a great growth of Canada thistle. The succeeding year I had a stout crop of grass heavily mixed with thistle. I mowed the grass about the first of August, on a good, fair hay day, and owing to the appearance of rain for the next day, I carted the hay into the barn on the very same day. The next day was a heavy rainy day. The result was that on the second year the thistles had entirely disappeared and have never grown to trouble me since, although I have since plowed the same piece of land.—A CHESTERFIELD FARMER, in *N. H. Journal of Agriculture*.

*For the New England Farmer.*

#### HIGH TAXES, AND DESERTED FARMS.

MESSRS. EDITORS:—I do not agree with Mr. Pinkham that farming is not a paying business, but I do say that farmers cannot make a living in this part of the State. Why? Because our State and County taxes have increased to such an enormous rate that our best farmers are leaving their farms, the buildings and fences are going to decay, their once fertile fields are running to brush and briars—are turned to pasturing, or are left tenantless—and the once thrifty farmer is leaving the State to go where taxation is not so burdensome, in some neighboring State where there is some economy used in the affairs of legislation. Now it is a fact that over thirty of our best farms have been left tenantless in the last ten years. The farmer pays a larger tax, according to what he is actually worth, than any other class of people. What is this tax for? It is to pay for an indolent legislature, to sit twice a year, two hours in a day for six or eight months in a year, at three or four dollars per day, to legislate on school affairs, or raising money to pay a board of education, or a superintending school committee to take the educating of our scholars from the hands of parents who are the best qualified to see to the educating of their children themselves.

It would not be so great an injury to the State generally if the cattle disease should sweep over it once in seven years, as it would for our legislature to sit one-half the year, or over, spending time and money in raising the pay from \$2 to \$4 per day, and the pay of many of our State, county and town officers, and all uncalled for by the people.

This is the general feeling of the farmers and laboring classes that are left in this town, and I hope that all newspaper editors who are not bought up by the Government of the State of Massachusetts will declaim against it.

*Ashburnham, July 2, 1860.* REPUBLICAN.

REMARKS.—Our friend "Republican" sends us his real name, but as he has a fancy to withhold it, we assent. He must have written in "a fit of the blues," or he has not investigated the matter upon which he writes quite closely enough. While we agree with him that we have too much legislation, we cannot believe that our legislation or high taxes in this State are the cause of the deserted

farms of which he speaks. They are natural causes—causes which puny man cannot control—and instead of being evidences of poverty and decay, they are to us clearly *evidences of progress and prosperity*. That is, man has exhausted the soil, cut off its timber, and carried off innumerable crops of rye and corn, and herds of fat cattle, and with these nearly all the minerals near the surface, together with the vegetable matter that had been accumulating by the agency of trees, bushes and coarse plants, through the lapse of countless generations.

Why should he remain there longer? If the land is of easy access and cultivation, and he has managed it skilfully and economically, he can remain forever and it will never fail to reward all his labor and care. But if it is not of this character, his course is precisely that of the miner,—he lays bare the vein, extracts the precious ore, exhausts it, and then seeks another and more promising spot, and in so doing proves himself to be a man of discernment and progress.

We do not agree entirely with our correspondent's views of the manner of educating the children of the State, as if there were no law compelling it, there would soon be a fearful number who could not read and write. But when we reach that Elysian age when all parents are qualified to teach their children, and have leisure to attend to it, we shall be happy to see the Board of Education and all superintending School Committees ranked with the things of "old fogydom"—but, we guess not, until then. When do you think it will be, brother farmer?

We should not feel it a hardship to extend these remarks much farther—for the subject is prolific of thought—but other matters pressing at present forbid it. We send by mail, a letter written in August, 1856, describing the country we saw at that time, and giving some of the reasons why *more than fifty farms* were deserted, which we saw in the course of one day's ride by horse power.

**OPEN VS. COVERED DRAINS.**—Mr. Mechi thus explains the reason why covered drains are so much more effectual than open ones: "A deep open ditch will not drain the adjoining soil, because when the sides are dry the water rises up towards the surface by capillary attraction, and thus heads back the water behind it. Put pipes into the bottom of this ditch, fill it up, and it will then drain the adjoining soil."

**ANOTHER RECOMMENDATION FOR THE APPLE.**—Chemical researches show that good varieties of the apple are richer in those bodies which strictly go to nourish the system than potatoes are; or, in other words, to form muscle, brain, nerve, and, in short, assist in sustaining and building up the organic part of all the tissues of the animal body.—*Anon.*

*For the New England Farmer.*

### CULTURE OF TOBACCO.

MR. EDITOR:—In agricultural papers I often see inquiries relative to the culture of tobacco. And as often as I read a reply to such inquiries, I am impressed with a sense of an unsatisfactory answer. My method is this:

First, the soil should be naturally strong and warm, that which has not been abused by over-cropping. And then with the following treatment a good and paying crop may reasonably be expected. Plow as early as possible after the crop of grass or grain has been harvested; weeds then growing will be destroyed, and by decaying, help to enrich the land; the seeds already ripe will germinate in time to be killed by autumn frosts; if likely to ripen their seeds too soon for the frost, they should be destroyed by a thorough harrowing, which, by the way, will be no disadvantage to the ground. The plowing should be sufficiently deep and the furrows so carefully turned over that the turf will not be disturbed; say seven to ten inches, according to depth of soil and previous treatment. When dry, a heavy roller passed over it previous to harrowing, will be found beneficial. It is now in good condition to rest till spring, and in the meanwhile receive the benefits of rain, snow, air, light and frost.

As soon as in good working condition in the spring, spread broadcast fifty ox-cart loads of well-rotted manure to the acre; and with a Share's coulter harrow, cover it just deep enough to prevent its being sun-dried. If the season is sufficiently advanced, the weather and soil warm, give it a very thorough harrowing with a fine-toothed harrow. Don't be afraid of harrowing too much. Better use horse flesh in May, than your own to drive the hoe in the hot summer months. The ground is now ready to receive the seed; and here we come to the most important point.

I would prepare the seed thus: Soak it twenty-four hours in pure rain water, caught as it falls from the clouds, that the clean, pure tobacco seed need not be contaminated by coming in contact with the filth of the roof of a human being's dwelling; then boil it eight and forty hours in a bright copper kettle, and lest the seed should not all germinate, plant five to eight grains of Indian corn in each hill. The prospect is now good for a crop that will support human life, and by promoting health, leave the brain clear and healthy, so that the soul may expand and rejoice in the contemplation of the Creator and the created, rather than sink to the level of the mountain goat and tobacco worm.

G. W. H.

*New Bedford, 3d Mo., 20, 1860.*

**TANNING SKINS WITH THE FUR ON.**—Nail the fresh skins smoothly and tightly against a door, keeping the skinny side out. Next proceed with a broad-bladed blunt knife to scrape away all loose pieces of flesh and fat; then rub in much chalk, and be not sparing of labor; when the chalk begins to powder and fall off, take the skin down, fill it with finely-ground alum, wrap it closely together, and keep it in a dry place for two or three days; at the end of that time unfold it, shake out the alum, and the work is over.—*Scientific American.*



*For the New England Farmer.*

### ANOTHER VISIT TO THE HOMESTEAD OF FARMER ALLEN.

Last summer I made a visit to the homestead of FARMER ALLEN, and subsequently wrote an account of some of the many doings that I saw during my short sojourn under his hospitable roof, and it was published in the *Farmer*. I have just returned from another visit to my friend, and I found as many things to interest and amuse me as I did at my previous visit in midsummer. The flowers that then delighted me with their beauty and fragrance had perished when the first rude blast swept from over the distant hills, and the first frost had appeared long ago in early autumn. The birds that awoke me at early morning with their merry songs had departed to a warmer clime. The giant elms around the homestead were no longer dressed with living green, and the cattle, that in summer dotted the distant hills and valleys, had been removed to the spacious barns, and many other rural sights had vanished; but in their places I found as many things to delight me as I did in the gorgeous summer.

The next evening after my arrival at the homestead the farmer invited me to attend with him the regular weekly meeting of the

#### FARMERS' CLUB.

I gladly accepted his invitation, for I longed to hear the farmers talk among themselves of matters and things connected with their honorable calling. The meeting was held in the town-hall, and I was glad on arrival to find the spacious hall well filled with an orderly and intelligent audience. As Mr. Allen was President of the Club, and as the hour of opening the meeting had nearly arrived, those that had been standing talking around the stove, and in various parts of the hall, came and took their seats. I quietly followed their example, and improved the few minutes that remained before the hour of calling the meeting to order, in looking round at the pleasant faces of the robust farmers that mainly comprised the audience. On the front seat sat a sturdy farmer with his four healthful-looking sons, and behind him sat the village doctor, who seemed to take as much interest in the subject as if he had been attending a medical lecture. He was accompanied by his only son, who, in a conversation that I subsequently had with him, told me that he had made up his mind to be a practical farmer. The lawyer of the village was there, and the parsons of both of the churches of the place, sitting side by side, as if they were of one faith.

The President announced the subject for discussion for the evening to be "*What breed of cattle is the best adapted for our New England farms?*"

In opening, he said that we had many breeds of cattle that had been imported, besides our common native stock; he alluded to the "Oakes cow" as a native animal, and said it was well known that our best stock, both for the dairy and work, came from this native growth. In concluding he said the subject was one of much interest and he hoped all would avail themselves of the opportunity to speak upon it. He called on FARMER BOYDEN for his opinion of the matter.

Mr. BOYDEN said he was in favor of the na-

tive breed, both for cows and oxen; that he had in his barn a cow from the native stock that he thought would compare favorably with any of the foreign stock. Deacon FARNHAM said he considered the Devon cattle the best; they would thrive on poor hay, and the oxen made capital roadsters. In concluding, he said he had some of the Devon stock for sale, and invited all present to give him a call, if in want of good stock. This remark caused a smile on almost every face. Farmer TANNER was in favor of the common cattle; he said that a young man just starting in life could not afford to pay such a price for stock as that demanded by those that had fancy stock for sale. He once owned the famous Durham bull "Berry," and found that a cross between the pure Durham and our common cattle resulted favorably to both breeds. But it is impossible for me to remember one-half of the interesting things that were said at this meeting; the time passed speedily away, and when the old church clock tolled the hour of nine, the meeting broke up, each one taking with him some new idea, which, if rightly developed, will result to his pleasure and profit.

On my way back to the homestead, Farmer Allen spoke to me of the great importance of having these clubs in every village in the country; he had found them to be a great benefit to himself; and although the farmers' club had not been established but a year in the place, yet in that short time it had been the means of doing much good. He mentioned one case as follows;

Shortly after the club had been organized, and while yet it was struggling for an existence, the following subject was given out for discussion at the next meeting, viz: "*The Preservation of Farm Buildings.*"

There was living, in a distant part of the town, a man who had come into possession of a fair farm soon after reaching his majority, but who had suffered the buildings upon it to go to decay until the cold winds of winter entered at every side, and his poor cattle stood a fair chance of perishing from the cold. His house had kept pace with the barns, and the old hats and gowns stuffed in at the windows were in keeping with its black, weather-beaten exterior. Farmer Allen said he thought if he could get this man at the meeting, he could infuse some ideas into him that might be useful; he invited him to be present, which invitation he somewhat reluctantly accepted. Farmer Allen also invited some of his city friends to come out and take part in the meeting. They came, as did also the invited guests. The speakers told how much less fodder cattle would eat that had a warm and comfortable shelter, than those whose only shelter from the wintry blast was the lee side of a hay-stack; they spoke of the beauty and comfort of having good buildings on the farm, and described in glowing language the advantages of keeping in repair the farm buildings. About a fortnight after the meeting, Farmer Allen, in passing by that way, was delighted to hear the merry sound of the hammer and saw in the direction of Neighbor SLACK's homestead, and on coming nearer, was still more surprised at seeing a force of men engaged in putting in complete repair the house, barn, stable, and even the cow-house! He said his delight knew no bounds when his neighbor came to meet



him, and grasping him by the hand, thanked him for inviting him to the meeting of the club! Nor did the march of improvement stop here—the fields afterwards were better cultivated, the children better clothed, the wife happier, and the man himself, instead of spending his winter evenings at the village tavern, is now spending them with his family, and on each Wednesday evening he attends as *Secretary of the Farmers' Club!*

A few days after my arrival at the homestead, I wished to write a letter to a city friend, and on signifying my wish to Mr. Allen, he invited me to walk into a room that he called

#### LIBRARY.

I entered a moderate-sized room, and found a comfortable desk, with all the necessary writing materials at hand. After I had finished my letter, I looked at the cases of books that lined one entire side of the room. I found them to be mostly agricultural works of worth. Here was "Allen on Farm Buildings," a well-known and reliable work; at its side was "Dadd on the Horse," "The Complete Cattle Doctor," by the same author, and Stephens' "Book of the Farm," "Cole on Fruits," "Youatt on the Sheep," and all the back volumes of the "*Monthly New England Farmer*," neatly bound. Judge FRENCH's new book on "Drainage" lay on the table, and had evidently been studied with care.

FREEMAN.

Sunnyside, February, 1860.

#### SWEENEY IN HORSES.

Will you tell what you believe to be the best remedy for curing the sweeney in horses, as it is very troublesome to cure when it once gets fairly seated, and is very painful to the horse? A. A.

*Answer.*—The sweeney is a shrinking of the muscles of the shoulder, usually caused by a sudden strain in drawing, or by alighting hard upon the fore feet after a jump. We have had considerable personal experience with this difficulty in horses. If taken fresh, it is best to bleed the horse in the leg from the vein on the inside of the arm, called the plate vein, which will allay the inflammation, but for an old case, this is nearly useless. Also physic the horse, and apply fomentations upon the shoulder blade, and the inside of the arm. In all cases, take off the shoes, and give the animal rest in a pasture, or on a dirt bottom in a large stall. If the case is not of too long standing, it is well to rub the shoulder with penetrating oils, like oil of spike. Our practice was to rub with a corn-cob, and hemp crash cloth. When once seated, be careful of overdriving and cooling off, as you would for a case of founder. A long rest in the pasture is the best remedy we ever tried.—*Ohio Cultivator.*

**CATCHING BEES.**—A simple contrivance has been invented by M. Dagon, of Moret-sur-Loing, in France, for receiving and inclosing bees from the hive, or when swarming. It consists (says the London *Bulletin*) of an elongated muslin bag, distended on cane hoops, and opening and shutting at the mouth by a running string. The bag being attached to the branch on which the bees are swarming, and the inside rubbed with honey, all the bees will soon make their way to the bot-

tom, when the mouth can be closed, and the bees conveyed away in the bag. The same contrivance is applied to abstract the bees from the hive and obtain the honey.

For the New England Farmer.

#### LUNAR INFLUENCE ON THE TEMPERATURE OF THE EARTH.

MR. EDITOR:—I did not intend to trouble you with anything further upon this subject, but it seems not well to cherish error when the truth can as well be known. In your issue of Feb. 11, I find your correspondent, "N. T. T.," of Bethel, Me., has again responded on this subject, and wishing to gratify him, and as many of your readers as take an interest in the subject, and if possible set the matter in a correct light, I send you the following list of observations on the occurrence of frosts in September, and their connection with full moon, for the last 20 years. And here, (as my temperature tables cover only the last four years,) I with pleasure acknowledge my indebtedness to JOSEPH WEATHERHEAD, Esq., of this city, who has kept accurate meteorological tables for the last twenty years, embracing temperature and barometrical, and of falls of rain and snow, &c., and who kindly granted me the privilege of consulting them.

I have noted all the instances in which the temperature has fallen to 39° in September, as a light frost in some sections generally occurs at that point, as well as every frost in August, and when none occurred in September, the first that occurred in October, as in 1841. I give the lowest observed temperatures at each frost, and that the reader may judge of their extent, will state: When the temperature becomes reduced to 35° or 36°, a general frost usually occurs, quite severe in marshy localities; 34° will produce a severe frost in most situations, and 32° or lower a very severe one, capable of destroying most tender plants. The record is as follows:

Date.	Min. Temp.	Full Moon.	Date.	Min. Temp.	Full Moon.
1840. Sept. 4,	39°		1851. Sept. 15,	32°	
" " 13,	32		" " 16,	35	
" " 14,	31	11th.	" " 17,	37	10th.
" " 23,	36		" " 28,	36	
" " 29,	32		" " 29,	29	
1841. Oct. 1,	32°	Sept. 30.	1852. " 14,	39°	
1842. No record in Sept.			" " 17,	37	28th.
1843. Sept. 13,	35°	8th.	" " 18,	39	
" " 14,	39		" " 30,	33	
1844. Sept. 7,	39°		1853. " 26,	39°	17th.
" " 23,	37		" " 30,	28	
" " 24,	32	26th.	1854. " 17,	38°	
" " 27,	32		" " 21,	35	
" " 28,	32		" " 22,	36	6th.
1845. Sept. 12,	39°		" " 23,	39	
" " 13,	32	15th.	" " 30,	32	
" " 17,	33		1855. Aug. 31,	38°	
1846. " 17,	39°		Sept. 20,	30	25th.
" " 29,	39	5th.	" " 21,	37	
" Oct. 4,	32		" " 29,	33	
1847. No record for the greater part of Sept.			1856. Sept. 25,	37°	14th.
" Sept. 20,	39°		" " 8,	38°	
" Oct. 1,	37	24th.	" " 19,	39	4th.
" " 2,	32		" " 30,	30	
1848. Sept. 13,	35°		1858. " 23,	34°	
" " 14,	36		" " 25,	33	
" " 17,	34	13th.	" " 26,	34	22d.
" " 27,	27		" " 27,	35	
" " 28,	30		" " 28,	33	
1849. " 3,	39°	2d.	" " 29,	32	
1850. " 14,	39°		1859. " 7,	39°	
" " 18,	37	21st.	" " 8,	37	12th.
" " 30,	34		" " 14,	35	
			" " 15,	34	

It is true that in the above table there are several instances in which a severe frost has occurred at full moon, and it is equally as true that as many severe frosts have occurred at new moon as at full moon, and that frosts seem to occur at random, as far as the influence of the full moon is concerned. There is no record in regard to the frosts of September, 1842, owing to the absence of Mr. Weatherhead during that month, and the same occurs in the first half of September, 1847, but otherwise the record is complete and reliable, and these breaks cannot materially influence the general result.

I have met with but little in my scientific readings that bears directly upon the subject of the moon's influence upon the heat of the earth. The older philosophers, after very careful experiments with powerful lenses, came to the conclusion that the moonlight was incapable of producing heat. Later researches, however, seem to prove the contrary, concerning which Humboldt observes:

"That the moonlight is *capable of producing heat*, is a discovery which belongs, like so many others of my celebrated friend Melloni, to the most important and surprising of our century. After many fruitless attempts from those of La Hire to the sagacious Forbes, Melloni was fortunate enough to observe, by means of a lens of three feet in diameter, which was destined for the meteorological station on Vesuvius, the most satisfactory indications of an elevation of temperature during the different changes of the moon. Mosotti-Lavagna and Belli, professors of the Universities of Pisa and Pavia, were witnesses of these experiments, which gave results differing in proportion to the age and altitude of the moon. It had not at that time, (summer, 1848,) been determined what the elevation of temperature produced by Melloni's thermoscope expressed in fractional parts of the centigrade thermometer, amounted to."

He further observes in a note: "It had always appeared sufficiently remarkable to me, that, from the earliest times, when heat was determined only by the sense of feeling, the moon had first excited the idea that light and heat might be separated. Among the Indians the moon was called, in Sanscrit, the King of the Stars of cold, also, the cold-radiating, while the sun was called a creator of heat. \* \* \* Among the Greeks it was complained that the sunlight reflected from the moon should lose all heat, so that only feeble remains of it were transmitted by her."

It is to be regretted that this worthily world-renowned scientist could not have given us more definite information respecting the extent of the moon's heating powers, and the period of her age and altitude at which they were the strongest. It must seem evident, however, from analogy, that the amount of heat must be in direct proportion to the quantity of light and the altitude of the moon, and consequently greatest at full moon and high moon. Doubtless the calorific influence of the moon is exceedingly slight, but whether slight or otherwise, must, taking this view of the case, conflict directly with the prevalent opinion that it is coldest at full moon. Without further speculating, I leave the subject, perhaps where I took it up, although I fancy I have shown facts

enough to prove the fallacy of this popular notion. And there are many other equally well received notions in regard to certain almost "infallible" weather prognostics that I do not hesitate to consider equally fallacious.

Springfield, Mass., 1860.

J. A. A.

REMARKS.—The above communication was received many weeks since, but has been delayed in consequence of the crowded state of our columns. Now that the farmers have left the pen for the plow, until their crops are perfected, we can make room for it without driving out articles that were written for, and applicable to, a particular season. We hope this explanation will be acceptable to our respected and valued correspondent.

#### EXTRACTS AND REPLIES.

##### GOOD PROPERTIES OF THE MILKWEED.

I noticed in the last *Farmer* a description of the common milkweed; but not a word was said about its ever being used for food, either for man or beast. I was told more than forty years ago, that it was excellent for "greens;" and being urged by a sister to lay aside my fastidiousness and just taste of it, I found at once that it was indeed excellent—but little inferior to green peas, which it as nearly resembled as anything I could compare it to.

Now, mothers, don't be afraid of it because you find numerous little insects creeping over its beautiful leaves, or snugly ensconced among its tiny blossoms; they doubtless know its good qualities, or you would not find them there. Gather them while the stalk is brittle, say from four to six inches high, break out the little bud, and boil the stalk and leaves until soft and tender. This, with a slice of good fat beef or pork, and other "fixins," is good enough for AUNT RHODA.

North Cambridge, Vt., 1860.

##### GRUBS AND CABBAGES.

I set out my cabbage plants a week ago, placing a teaspoonful of salt at the bottom of the hole, because those which I set in this manner last year did well, and were not molested by the grubs, but now about half of the plants have been eaten off. I have applied ashes, but without success. How shall I save the plants? I find the grub just beneath the surface of the earth, looking like a small worm, but under the microscope exhibiting legs, which he uses about as awkwardly as the elephant does his.

A few tomato plants have dropped off like the cabbages, but I find no grub at the roots. What is the cause?

##### DEAD HENS.

During the past year I have found some thirty hens dead at different times and in different places about the premises. The comb is always very black. Can you inform me what the disease is, and of its cure?

Hopkinton, June 11, 1860.

G. A. A.

REMARKS.—The remedy for the cabbages is to use the finger about the plant, find the grub and kill him. We know of no other. He will not stay his progress for salt or snuff, but when the scissors take his head off he will confess himself a "goner." We cannot account for the death of your fowls.

##### LEGHORN HENS.

I saw in the *Farmer*, three or four weeks ago, a statement by Mr. L. R. Hewins, of Foxboro', recommending the Leghorn fowl as superior to all others for their laying qualities, &c. I took a trip to his house a few days ago to ascertain more about it, and was so well pleased with the looks of the fowls and the information that I obtained there, that I bought a dozen of

their eggs to put under a sitting hen. He, as well as myself, had tried the Chittagong, which have one serious fault. When they want to set, after laying a litter of some twelve eggs, it takes nearly as long to break them up and have them commence laying again, as it does for them to lay a litter of eggs. Besides, being large hens, they are great eaters. The Leghorn seldom wants to set. I think Mr. Hewins told me that his Leghorn fowls had laid regularly since last fall, and have not wanted to set. The hens are not large, most of them white, with yellow skin and legs. The males have very large single combs and large wattles.

*Mansfield, June, 1860.*

I. STEARNS.

#### CATTLE IN THE BARN AND IN THE YARD.

I would like to inquire through the medium of your paper if it is judicious to stable cows at night through the summer season, or to let them remain in the barn cellar? The objection made to the former proposition, is that it is unhealthy and uncomfortable for the cows to be confined in the barn at night through the warm weather; whilst the objection to the latter plan is, that it fails to make as much manure as the former. Which objection is the most weighty? Please to answer as soon as convenient, and oblige

*Woonsocket, June, 1860.*

A SUBSCRIBER.

REMARKS.—If we could have things just as we pleased in regard to this matter, we should prefer a large, well-sheltered yard, with ample shed accommodations, and then leave the cows to lie down in the yard or under the shed, to suit their own feelings. We believe in the largest liberty for cattle, compatible with their safety and our interests. There would not be much loss of manure if the bottom of the yard and shed were first covered with muck and then litter, as they should be if the cattle are to lie in them. There is no doubt on our mind that the cattle would be more comfortable and healthy in such a yard than they would be tied up in the barn.

#### THE ONION MAGGOT.

I accidentally learned the following from a man who said he *knew* how to raise onions, and not be troubled with the maggot. He said he had a nice lot of onions, and the maggot attacked them. He took a teakettle full of boiling water and poured upon a few rows, thinking if he did not kill them the maggot would. This operation did not kill the onion, but it did kill the maggot, and after applying the water to the remainder he succeeded in raising good onions, and it always has since, when tried.

Whether a truth or a lie,  
You may have as cheap as I.

*North Charlestown, N. H., June 5, 1860.*

#### A SUBSTITUTE FOR MUCK.

Farmers often complain of a want of muck on their lands, and the degree to which they use absorbents for liquid manure depends almost wholly on the presence or absence of this valuable material. When a farmer has a muck deposit on his premises, let him rejoice in his good fortune, but why should those who have but little or none feel hampered when making up their compost heaps? The entire contents of the heap are destined for the tillage land of the farm; why then might not the absorbent portion be taken from the surface of the soil to which with the distributing of the manure it will be restored?

*Marblehead, Mass.*

J. J. H. G.

#### CORN AFTER BUCKWHEAT.

As the season has arrived for raising buckwheat, I would inquire if the growing of it is injurious to the raising of Indian corn on the same land afterwards? Hermon Hall, Esq., of this town, says that after raising a crop of buckwheat on a piece of land he could not get a crop of Indian corn upon it, as he was in the practice of doing before.

*Mansfield, June, 1860.*

I. S.

#### AQUEDUCT PIPE.

I would like to get information through your columns about the water cement aqueduct to bring water from a well to my buildings. Is the water better than when brought through lead pipe? How should it be laid, and the cost per rod?

A SUBSCRIBER.

*Deerfield, Mass.*

REMARKS.—Cement pipes are laid, and we believe are durable when below the frost, but we know little of the mode of construction or cost. There is nothing, in our opinion, equal to good pine logs, either for health or economy.

#### HAYING AND HAY CUPS.

The season of haying is near at hand, and it will be a matter of comfort and economy to all concerned in it to have every preparation made in advance that will facilitate the gathering it quickly and well.

Is the hay cart or wagon in order with proper outrigging, so that a ton or more can be thrown on readily?

Are the binding pole, or rope, the forks, rakes, scythes, hay-poles, grindstone, all in order and ready for use?

Is a mowing machine selected for the smooth farms where twenty-five tons of hay are cut, and a good horse rake, or will you wait another year in the hope of getting something better?

Is the barn itself ready for the crop? Are those openings in the side, or that ugly leak in the roof, repaired, so that the loss will not trouble you as it did last year?

"All these are ready." Very well, then. Now by judicious management, that is, by good calculations, working moderately and living well—you may get as much enjoyment out of this season as the "gadders about" do in their trips to become a little more fashionable, and spend their hard-earned money.

Haying is a pleasant labor—it seems to inspire all who engage in it; the crop comes in so rapidly, and there is such a wealth in the harvest, that all the household have a cheerful animation and desire to help it along—the women assisting in a pinch, cheering on the labor with kindly words, or devising some unexpected treat when the day's toil is done. Bless the women, they are always ready to help along a good cause.

DRYING THE CROP.—The idea is common that hay cannot be made too much, but it is an erroneous one, and great loss is incurred by its prevalence. If exposed too long to the sun, and the hot, drying winds, it becomes hard, brittle, loses its leaves and a considerable portion of its nutritive juices, and in this condition, if the grass is coarse, the hay from it is not much better than dried brush; at any rate, its value is much depreciated. The farmer may learn something of his wife in this matter, if he will observe what course she takes in preserving her sage or other herbs,

for culinary or medicinal uses. They are not cut and spread in the blazing sun, and their juices blown away by the winds, but when cut, are taken directly into the shade, where they will dry slowly. This is the practice with the Shakers who put up large quantities of herbs for the markets; they incur heavy expenses for large drying rooms, where their herbs are out of the sun, but in well-ventilated rooms. When these herbs are thoroughly dried so that they can be readily pulverized, they retain very nearly their natural color and original fragrance, so that one pound of them is probably worth as much as two or three pounds would be dried in the sun. But as we cannot provide rooms for drying our grass crops, we must come as near that process as we can economically, and that may be secured by the use of cloth coverings, called

**HAY CAPS.**—Any farmer's wife or daughter can make them. They should be two yards square, with loops at the corners through which to thrust pine sticks fifteen inches long up into the hay. Or they can be purchased at a fair price, already made, of the Messrs. CHASES & FAY, 233 State Street, Boston, or of NOURSE & Co., 34 Merchants Row. A set of these caps, properly taken care of, will last a farmer his life-time, as all the care they need is to be kept dry when not in use.

The course to be pursued in the use of caps is, to cut the grass just at night, or early in the morning, spread it and turn it before one o'clock, and immediately after dinner cock and cover with the caps. Cocks well made up, and covered with such caps as we have described above, will come out unharmed after a storm of three or four days. After a rain, when the surface has become dry and slightly heated, the cocks will need little more than to be turned over and partially opened, for it will be found that the process of making has been going on admirably all the time—that the hay is *cured*, not merely dried—that the leaves adhere to the stems, and that it retains a lively green color and a delicious fragrance. Take such a cock of hay and compare it with a cock that has not been covered, allowing the eyes, nose and hands each to test it, and no unprejudiced mind will longer doubt the usefulness and economy of hay caps.

**VALUABLES.**—If your flat-irons are rough, rub them with fine salt.

If you are buying a carpet for durability, choose small figures.

A hot shovel held over varnished furniture will take out white spots.

A small piece of glue dissolved in skim milk and water will restore old crape.

Ribbons should be washed in cold suds and not rinsed.

Scotch snuff put in holes where crickets come out will destroy them.

*For the New England Farmer.*

#### THE CATTLE DISEASE.

In the *American Agriculturist* of 1843, I find the following:

"The epidemic among cattle in Ireland is called pleuro-pneumonia, or galloping consumption, and is thus described. Acceleration of the pulse, which ranges from 80 to 120. The animal invariably hangs his head, accompanied by dryness of the muzzle; the flanks heave according to the severity of the disease; a husky cough, weeping from the eyes, total loss of appetite, grinding of teeth, secretion of milk suspended, the belly drawn up, a low moaning, together with a grunt at every expiration, the lungs appearing, also, to be filled by a painful effort only. These symptoms are all progressive. The treatment should consist of active blood-letting, when the first symptoms appear, to be repeated afterward if necessary, followed up by sedative medicines and general spare diet. When an animal is attacked, it should be bled at once, this remedy being peculiarly applicable to affection of the lungs, and the best advice should be procured. If this treatment be not followed in the early stages, rapid effusion sets in, and no power can save the animal. From observation, we are also of opinion that high bred and high fed cattle are more subject to attack, than those which have been less attended to."

You see by the heading of this piece, that the disease is called an epidemic, which I have seen disputed in your paper.

#### REMEDY FOR INFLAMMATION.

I find by trial, that lamp oil is an excellent remedy for inflammation or hardness of cows' teats and bag. I have had a cow's teat so hard and feverish, that no milk could be got from them at night, and by applying lamp oil they would be soft and well in twenty-four hours. A READER.

#### NEW PUBLICATIONS.

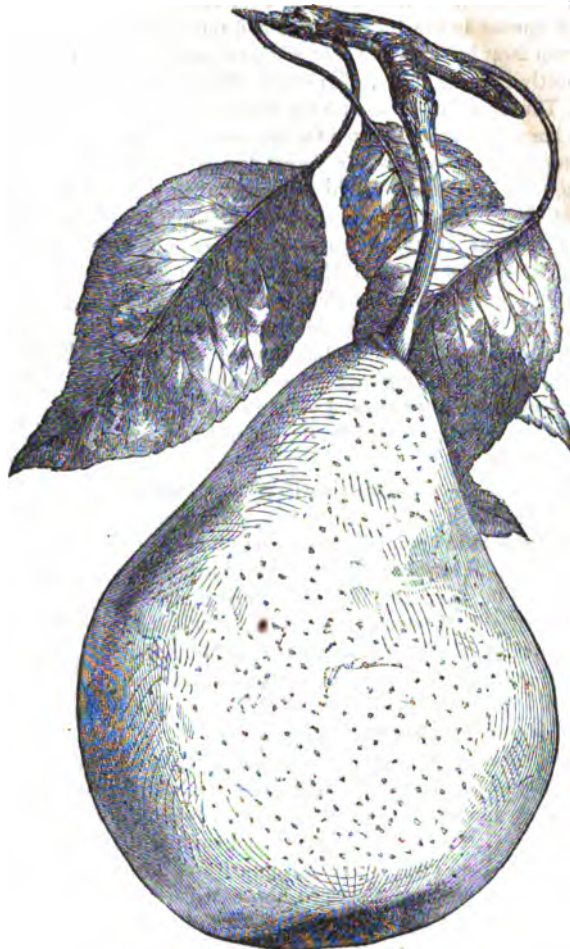
**THE YOUNG FARMER'S MANUAL;** Detailing the manipulations of the Farm in a plain and intelligible manner. With practical directions for laying out a farm, and erecting buildings, fences and farm gates. Embracing also *The Young Farmer's Workshop*, giving full directions for the selection of good farm and shop tools, their use and manufacture, with numerous original illustrations of fences, gates, tools, &c., and for performing nearly every branch of farming operations. By S. EDWARDS TODD. C. M. Saxton, Barker & Co., N. Y. For sale by A. Williams & Co.,

This is the title of a new book just issued by the enterprising agricultural book publishers whose names are appended above. It clearly indicates the text of the book, so that all we have to say is, that it is evidently written by a man who knows the farm intimately, and knows how to talk about it to others. He has been fortunate in selecting as one of his topics, the *Young Farmer's Workshop*, and he does not give it any more importance than it deserves. A farm without a workshop! We scarcely know how the farm can be managed. Hamlet, without the Prince! Well, Mr. Todd, we shall keep shady about the farm, but in the supplies and skill exercised in the workshop, we cannot knock under to you, or even your book. We hope everybody will purchase a copy.

**THE HOWELL PEAR.**

This excellent pear was received many years since, from New Haven, where it was produced from seed, by Thomas Howell, Esq. The growth of the tree is erect and good. The fruit is uniformly fair, and not liable to crack. *Size*, rather large. *Form*, obtuse pyriform, inclining to oval. *Stem*, long and stout, frequently fleshy at the base, and set without much depression. *Calyx* open, moderately sunk in a shallow basin. *Color*, pale clear yellow, with fine blush on the cheek, marked with minute russet dots, and shaded with some russet patches. *Flesh* white, half melting, juicy, with rich aromatic flavor. *Maturity*, October. *Quality* excellent, nearly best.

The original of the above was furnished us by Col. WILDER, from his ample grounds at Dorchester, as well as the description which now accompanies the engraving. We have often been able to embellish our columns with portraits and descriptions of fine fruits through his skill and kindness.

**WEEDING TIME.**

The grocer who allows swarms of flies and cockroaches to visit his sugar barrels and eat at will, would not be set down as an economical or thrifty man. No less should the husbandman be looked upon as a good manager who allows weeds to rob his crops, by feeding upon the substances which they need to perfect them. Weeds are robbers, but it is robbing without crime on their part. The fault of the matter lies with those who *allow them to rob!*

When some younger than we are now, writing-masters used to excite us by their proclamations: "Writing made easy in four lessons," said they—and we wondered through what alembic we must pass to acquire such an accomplishment in four easy lessons. Then when we had to weed carrots, and come out of the field at night in the shape of a hoop, how we longed for something like the writing-master's alchymy, whereby we could weed the confounded things without turning ourself into a hoop-snake, or looking at night like a wilted parsnip!

Now we have it. Blessings on the inventors! *Mann's Vegetable Weeder is the thing.* Why, one can almost ride on it and take a nap, and at the same time do more and better work than with any other implement we have yet seen. That is, we think so now, after a trial of it of only a part

of two days. We hope to be more thoroughly acquainted with it, and will state the result, whether for or against it.

*For the New England Farmer.*

**IS FARMING PROFITABLE?**

MR. EDITOR:—Much is said in your columns in answer to this question. I will relate a case, which came within my earliest recollections, and interest in farming.

Some forty years ago a young man took to himself a wife, and soon after, the young couple moved on a farm which he had leased. The farm was poor and hard to cultivate, and not worth more than \$1000. It contained about 100 acres. The man and his wife were poor, and as he has often said, "he could have carried all that they both possessed on his back at one load."

His name for convenience sake, I will call Obed. He managed to stock this farm and supply himself with utensils as he could best do when, after three years, he removed on a farm near by, which he cultivated "at the halves," a term which I believe is generally understood in New England. Obed managed this farm successfully, to the entire satisfaction of his landlord, I think for the term

of five years, when he purchased a farm for \$2000, which is now worth, from his good care, and with increase in farm property, \$8,000 to \$10,000.

Mr. Obed managed to pay for this farm, I think in about three years, when he was free from debt, and had greatly improved his estate. From that time he began to lay aside money, and would lend the same on good security. He has been blessed with a large family of children, two of his sons he has settled in the learned professions, one a physician and the other a lawyer, and he is now worth \$30,000 to \$40,000, and for the last twenty years of his life has been as independent as any one could be.

Here is one witness that farming is profitable. It will be seen that Mr. Obed labored hard. He did so. He was attentive to his business, and was prudent, all that. Who can succeed in any calling without diligence and frugality? It shows, and shows conclusively, that money can be made on a farm under very embarrassing circumstances. Mr. Obed and his wife commenced with the determination to become independent, and they did so.

No one ever has been successful in mercantile life without giving his whole attention to his business. A successful merchant, I acknowledge, will accumulate money more rapidly, by successful speculations, but take the average of traders from the commencement of their business life, and they will not succeed better than did Mr. Obed.

*Boston, June 12, 1860.*

D.

*For the New England Farmer.*

#### FARM HINTS---FARM FACTS.

Now, Mr. Farmer, never allow bushes to grow around the walls and fences of your mowing fields. No neat farmer does this—when you have done haying, use the pick and nigger hoe.

Never allow your grass to stand too long, lest it become tough and wiry, and you lose its sugary juices.

Never let your grains stand too long, lest they shatter and sow the field for another year. When the berry begins to harden, cut the grain at once—it makes better bread.

Never allow your hay to lie over night in spread or winrow—make it in large cocks, and save all its aromatic sweetness which constitutes its nourishing value.

Never use the horse rake that scrapes to the ground, taking with it sand, hassocks and earthy matter that will give your horse the heaves and assist your cows to a cough and consumption. The less dust in your hay, the more healthy your animals.

Never allow your colts or horses to stand on their heated offal month after month, by daily bedding down with straw for cleanliness. You will surely propagate pinched hoofs, dry tender feet, stiff ankles, heated, swollen legs and cough, from strong ammoniacal exhalations—rather give them granite, brick or lead as cooling substances to stand upon, bedded down at night; then their feet are prepared for hard roads and paving stones. How many farmers kill their horses with kindness, or rather cripple them for life by standing them in a manure pit.

Never dock or cut off a horse's tail; the bar-

barous pulleys and cleaver were never made to mar the natural beauties of the horse, nor to give him the excessive torture he is compelled to suffer. If you would make a young horse look old, chop off his tail. If you would keep him youthful and colt-like, let alone this natural ornament. It was made for use—remember “fly time”—how they bite!

Never plant small potatoes (less regarded than any other seed;) always cut off the “seed end” or small eyes, and avoid “pig potatoes” in digging time. None more skilled in potato growing than our Long Island farmers. This is their practice.

Never sow your wheat without soaking in salt pickle and raking it in wood ashes. See experiments of the two brothers out West, published in the *Farmer* recently. The pickled seed produced nearly double in quantity, other advantages being equal.

Never cultivate four acres of corn to get what one of the same can be made to produce—yet, this is one of the common errors among farmers. It is nothing remarkable to get one hundred bushels of corn to the acre.

Never put into the hands of hired men and boys, old, lumbering farming tools, nor put the team to a superannuated old plow and expect a fair day's work. When the tools are light and modern, labor has a pleasant relish.

Never omit to have the barn-yard well covered with soil at this season, nor to move the cows around the yard and secure their droppings before they leave in the morning; then with a shovel dig a hole and bury—keeping the yard clean, and saving the value of the manure from the drying sun.

Never allow your carts, wagons, sleigh-sleds, or any farming tools, to be exposed to sun and rain when not in use, and even the draft chains that are resting on the fence, put them all under cover, if you would consult economy. How often do we see a sled on the road-side, with its shoes rotting on the ground, when a minute's labor would relieve it by putting under two sticks?

But, Mr. Editor, I have no fear that I have offended the well-ordered farmer by these suggestions, neither do I vainly suppose they afford him any instruction. It is those whose gates are off the hinges, the bars down, the manure pile of last winter at the end of the barn, that should now be in the field to help the corn grow, that may take and perhaps be benefited by these hints.

*Brooklyn, L. I., 1860.*

H. POOR.

THE HOMESTEAD, published at Hartford, Ct., is one of the best agricultural papers we see. It has a powerful team of Editors, and they turn out their work completely finished for public use. Take and read *The Homestead*, brother farmer, and you will soon become a wiser man.

CRANBERRY CULTURE.—“J. M., Orange, Mass.,” will find his questions in relation to cranberry culture fully answered in “*Eastwood on the Cranberry*,” a valuable little work which costs fifty cents. We could answer many of them, but it would not be so satisfactory as would the book.



For the New England Farmer.

# **HONEY BLADE---HUNGARIAN GRASS.**

I write for further information than what the *New England Farmer* has yet given, respecting the Hungarian grass. Something over one year ago I received several copies of a small pamphlet of sixteen pages, (one copy of which I now send you,) which magnified the good qualities of the Hungarian grass, called in the pamphlet the "Honey Blade." The book extolls the good qualities of this grass beyond all belief. It says: quoting an article from a writer from the *Valley Farmer* of 1857, that "it is a crop that never fails. Wet or dry, cold or hot, it has been a good heavy crop." \* \* \* "As hay, it is superior to Timothy, that old and substantial favorite of every farmer. Horses, changed from Timothy and corn to Hungarian, begin to thrive on half the usual allowance of corn, and put on that fine glossy coat so much admired by stock-growers.

"It is not the hay alone which gives value to this crop; it produces seed at the rate of twenty or thirty bushels to the acre, which in nutritive properties is much superior to oats; it is heavier, and contains a larger amount of oil. We know of a farmer in this section, last season, who from five acres threshed out one hundred and fifty bushels of seed, which is sold at four dollars a bushel, making six hundred dollars. A farmer in Illinois sowed some land with this seed after taking a crop of spring wheat from the same land, and produced three tons of good hay per acre."

A correspondent of the *Albany Cultivator*, in answer to an inquiry for the best substitute for hay, gives preference to the Hungarian grass over every thing else. He says: "It grows at the rate of six or seven tons per acre. The seed is of an oily nature, and horses or cattle will eat the seed before corn or oats, and the hay before Timothy, or clover. Horses having been fed on grain, and good Timothy hay, began to improve immediately in flesh, and their coats more sleek and shiny. Cattle will do very well on this hay after the seed is threshed out. The grass has good roots, grows deep in the ground, and will stand dry seasons much better than any other kind of grass. After the grass is mown, it will sprout or sucker very thick, and will make much more pasture than Timothy and clover, after being mown, during the summer and fall. In some sections where Timothy sells for ten dollars per ton, the hay of the Hungarian grass brings from twelve to fifteen dollars per ton."

The *New York Tribune* quotes from a correspondent in Vermont, who is jubilant over his success in growing the Hungarian grass. He produced two tons of dry grass, and twenty-five bushels of seed from four quarts sown. He claims for it an average yield of over six tons of dry grass, and thirty bushels of seed per acre."

An Iowa farmer, located in a section where this product has been well tested, states that the "usual yield of the Hungarian grass, in that section, is about six tons per acre; but the premium crop of this county, as returned to our late fair, was eight tons and some hundred pounds to the measured acre, of good dry hay, suitable to be put in stacks, duly sworn to by disinterested parties, to the satisfaction of the committee, in order to receive the premiums."

The above pamphlet states that the manner of sowing is the same as for oats or wheat. It says: "An acre sown about the last of May, would, at the first cutting in July, yield, at a fair average, four tons, and at the second cutting, about one month later, would yield two tons more, making six tons to the acre. The amount for seeding an acre should be about sixteen pounds." As one bushel of the seed weighs forty-eight pounds, it would be one-third of a bushel to sow an acre. It is stated that it can be sown as late as August, and insure a crop.

I will now state that after receiving the pamphlet from which I have made the above extracts, I sent three dollars by a Mr. Chase, whom I came across in Mansfield, (his wife residing in the town at her father's,) who said that all the seed which was to be had in New York, came through his hands as an agent, and offered to send me, as he was returning to New York, a bag of the genuine seed. But he never sent it. His wife, however, paid me back the three dollars, but I got no seed. This Mr. Chase said that the true genuine Honey Blade Hungarian grass seed was black, or of a very dark color, and that the light colored was not. I have sent to the agricultural warehouse connected with your office for some of the seed, but have not yet sown it. I find that a small part of that seed is black; say one-tenth part. I intend to pick out a small quantity of the black seed, and sow it alone in a drill in my garden, in order to ascertain if its product, when it ripens, will be all black seed, and find out its difference from the other seed, which is of a yellow cast.

I think if it is of half the value as represented in the above pamphlet, it ought to be more generally known and cultivated. Will not some of your readers furnish more information upon the subject?

Thinking it possible that you have not seen Mr. Felix H. Benton's pamphlet, I hereby forward it to you, for your inspection.

Mansfield, June 11, 1860. ISAAC STEARNS.

REMARKS.—We have seen the pamphlet referred to, and examined it with some care, and do not believe one-half of the results which it states can be realized in New England. We sowed the Hungarian grass seed on land that would have brought us fifty bushels of corn to the acre, and got about one ton per acre, of what is called Hungarian grass, when made into hay. It is a variety of millet, and will undoubtedly produce a large crop when all things are favorable; but it is an annual plant, must be sown every spring, and subjects the farmer to the cost of plowing and re-seeding annually. Hope you will give it a thorough trial, and give us the results.

WORTH KNOWING.—The great difficulty of getting horses from a stable where surrounding buildings are in a state of conflagration is well known, and that, in consequence of such difficulty, arising from the animal's dread of stirring from the scene of destruction, many horses have perished in the flames. A gentleman, whose



horses had been in great peril from such a cause, having in vain tried to save them, hit upon the experiment of having them harnessed as though they were going to their usual work, when to his astonishment, they were led from the stable without difficulty.—*Spirit of the Times.*

A much more easy and expeditious way of getting a horse out of a burning building, or when near one, is to take off your coat, throw it over his head and shut out the sight of all objects. He will then usually follow your lead anywhere.

*For the New England Farmer.*

#### THE POTATO BLIGHT AND ROT IS CAUSED BY INSECTS.

MR. EDITOR:—I answered Mr. Goldsbury through your columns, May 12th, at his own request. His "seven reasons," of March 3d, I refuted by actually showing, attested by reliable certificates, (as published in *N. E. Farmer*, May 12th,) that insects cause the potato blight and rot. He attempts a reply, June 2d, denying in vague generalities the facts which I have placed before your readers. If he will not admit, and does not refute the facts stated in the authorities, it is useless to argue this question with him. I have frankly given him the authorities which establish beyond question the true cause of this malady. It is traced to microscopic insects, subsisting suctorially in their larva age upon the roots. Mr. Goldsbury admits his ignorance about microscopic research into this subject, never having "looked through the microscopic glasses." Thus ignorant, who will admit his hypothetical theories, unsupported by one single authority or certificate? If he is right, why don't he give, frankly, the names of the "seventeen plain, shrewd, common sense Yankee farmers," who know so much, and have searched microscopically into the entomological and botanical condition of the potato? I respectfully ask him for their names, and certificates of their investigations. Mr. Goldsbury and your readers have "Yankee shrewdness and common sense" enough to understand, that facts are better and more reliable than "logic;" therefore, I gave Mr. Goldsbury no "logical answer," because I produced ocular facts to refute his hypothesis and theories;—facts attested to by the highest authority in the nation.

*Baltimore, June 5, 1860. LYMAN REED.*

#### LANDSCAPE AND ORNAMENTAL GARDENING.

—Our old friend and correspondent, R. M. COPELAND, Esq., has associated himself with Mr. C. W. FOLSOM, to furnish plans for the laying out and improvement of cemeteries, public squares, pleasure grounds, farms and gardens, and also for the construction of buildings connected with agriculture, horticulture and general improvement. Mr. Folsom will give his attention to all branches of civil engineering, such as the laying out of roads, surveys for water works, railroads, &c., &c. They are skillful, competent and reliable gentlemen, and are able to connect with the principles which they well understand, a decided good taste.

*For the New England Farmer.*

#### EVERY MAN A KING.

BY E. E. THWISSBURT.

New England! land of labor,  
Stalwart forms and iron wills!  
How the wanderer's fondest memories  
Linger 'mong thy granite hills;  
And, mapped upon the vision  
Of thy absent sons who stray,  
Lie the outlines of thy valleys—  
There the mirrored memories play;  
Memories of the land that bore them,  
What a wealth of joy they bring—  
Land of maidens more than queenly,  
Land of men, each one a king!

There are honors won in battle,  
Mingling blood of friends and foes,  
And a haughty pride that fattens,  
On a suffering brother's woes:  
Ye are nobler honors winning,  
New England's sons of toil!  
'Mong the workshops' clanging forges,  
Or the boulders of the soil.  
Though bloody deeds ye boast not,  
Nor the battle trophies bring,  
Every workman is a monarch,  
Every toiling son a king.

Thrones there are, with gold encircled,  
Radiant in a wreath of gems!  
Robes with many a diamond sparkling  
Fringed with burning sapphire hems!  
Thrones there are, O, fair New England!  
In thy boundaries not a few,  
Whence a thousand rulers give us  
Blessings like the heavenly dew.  
Where the plowman turns the furrow,  
Where the beaten anvil rings,  
In the modest robes of labor  
Stands a true and royal king.

Plowing through the waves of ocean,  
Breasting every rolling stream;  
Rattling through the vine-clad valleys,  
Chaining e'en the lightning's gleam;  
Riding high in air above us,  
Gilding o'er the rolling sea,  
Heralds from the court of labor  
Hail the rulers of the free,  
Whose maces are sledge hammers,  
Whose praise their anvils ring,  
Hard and sinewy modern monarchs—  
Every one a more than king.

Every click of workman's hammer  
On the red and yielding steel,  
Every puff of lab'ring engine  
Where the thundering car-trains wheel,  
Every dash of rolling paddles  
In the waters of the sea,  
Echo far and wide the anthem—  
We are rulers of the free!  
Every blow of grim old forger  
The song of triumph rings,  
We have every one a kingdom!  
And we dwell where all are kings.

*Lawrence, Mass., May 30, 1860.*

WONDERFUL INSTINCT OF A CAT. On Thursday of last week, Capt. Elijah Crocker, of this village, sent a cat and two of her kittens to Boston, by the sloop S. P. Cole, Capt. Washington Farris. The cat and kittens were taken on board Capt. Crocker's vessel, the ship Ashburton, soon to sail for Calcutta. But on Thursday morning it was

found that she had escaped; and on Saturday night, at 10 o'clock, she arrived home, at the residence of Mr. Ebenezer Smith, of this village. This is indeed a wonderful illustration of the instinct of the cat.—*Barnstable Patriot*.

Well done, Major Phinney! If you had told this story about a *fish*, it would have been all natural enough, but such a whopper about cats beats all nater. Well, we can't afford to let you "go up to the head" until we have told our story.

Mr. Charles Blake put a six months' old kitten into a basket one Saturday morning, in the town of Newton, *seven* miles from Boston, put a cloth covering over the basket, and tied it down. He then carried the basket to the cars, put it under his seat, and when he arrived at the Station house in Boston, opposite the U. S. Hotel, took the basket in his hand and carried it entirely across the city to Quincy Hall, his place of business. There he let the little prisoner out, and she was seen about the hall during the day, but on Monday morning on going down to breakfast he found his little friend back to Newton, all hale and hearty, and ready for her cup of milk!! She had escaped from the hall, traversed the entire width of the city and seven miles through the country, to the place of her birth!! Thank you for that hat, Major!

*For the New England Farmer.*

#### CATTLE DISEASE.

MESSEURS. EDITORS:—Pleuro-pneumonia is rather an uncouth phrase to be delivered by children born of Anglo-Saxon parents who had no hereditary Greek in their compositions. Pleuro is derived from the Greek word *pleura*, which signifies the side, and pneumonia, from *Pneumon*, the Greek word for lungs. There is a membrane which lines the inside of the chest and covers the ribs and then extends to and envelops the lungs. Mankind, cattle and other animals are provided with this membrane. When inflammation seizes the membrane that lines the ribs it is called a pleurisy, or inflammation in the side, which causes pain in the side, and when it seizes both the membrane that covers the lungs and that which lines the ribs, the disease is called the pleuro-pneumonia, or pleurisy and lung fever.

Names go for what they are worth, but disease is a reality. From analogy, comparing the cattle distemper with the pleuro-pneumonia which afflicts mankind, we might suppose that it commenced with a degree of inflammation which continues for a short time, and then degenerates to a morbid and putrid state of the lungs, which terminates the animal's life. Malignant diseases, among mankind, whether epidemic or from contagion, are limited. When the plague, yellow fever, small pox, or any other desolating disease has prevailed for a season, it gradually spends its virus and becomes more mild, so that physicians are often led to suppose that they have discovered some more effectual mode of treatment than at the beginning of the disease. This process of atmospheric purification continues till every parti-

cle of the offending virus is absorbed or expelled from the atmosphere, and the distemper which has caused so much terror and destruction becomes completely extinct. Judging from analogy, we may suppose that after a satisfactory number of cattle have been sacrificed to propitiate the wrath of the demon pleuro-pneumonia, that the atmosphere will become purified of all noxious influences, so fatal to cattle, and the plague will be stayed.

SILAS BROWN.

*North Wilmington, June, 1860.*

#### POSTS INVERTED.

"W. H." asks our opinion on the practice of inverting posts. We have full confidence in its usefulness. The conditions necessary to rapid decay, are to be learned at the earth collar of the post; there where the moisture of the soil and the atmosphere can exercise their joint action, posts first rot, while the part above, as well as below this point, remains sound for a much longer period.

When the style of wood is such as to permit the post being turned upside down, the rotting will be much slower, particularly if the butt be cut angular or shelving, so as to pass off water falling upon it. When the post is placed in the same position in which it grew, viz., butt down, the capillary tubes carry up moisture from the soil, and thus it is always moist at or near the earth collar; when on the contrary the position is reversed, this capillary action does not occur, and with such there will be slower decay.

There are other methods, however, of preserving posts, all of which, by the by, may be added to the inverting practice. Thus, with the inverting practice, a hole may be bored in the top, a small amount of corrosive sublimate placed in and plugged; this will disseminate itself, passing downward through the post, and thus kyanizing the wood by rendering the sap insoluble. The portion of post intended to be placed in the ground, may be stood in a vessel containing a dilute solution of corrosive sublimate, and be kyanized. This operation, however, although it renders all woods as lasting as locust itself, is expensive, and, therefore, can only be appealed to in the vicinity of chemical works, where corrosive sublimate may be had at moderate prices.

The lower portion of posts may be coated with coal tar, or rosin oil, and then slowly carbonized, by setting fire to this coating. This treatment causes them to last a much longer time. The ordinary gas tar is frequently used for this purpose.

Immersion in a solution of common copperas, chloride of zinc, and many other salts, has been used with advantage.

It is quite strange that while farmers study economy, even beyond their truest interest, in the purchase of fertilizing materials, labor-saving tools, etc., still they will fence their farms with chestnut, without the slightest preparation, repeating this expensive operation, as far as the posts are concerned, at least as often as once in fourteen years; and this in the face of the fact that with the means we have named, much greater economy may be availed of.

It has been asserted that the cost of the fences in the United States, is greater than the interest

on the national debt of Great Britain; we believe this, and therefore call the attention of our readers to the necessity for economy in fencing. In many parts of the country hedges are used with advantage, but in some districts the land is too valuable to be thus used, and in such locality economy in fencing becomes important. — *Working Farmer*.

*For the New England Farmer.*

#### THE CATTLE DISEASE AND THE LEGISLATURE.

MR. EDITOR:—Is it not strange that the members of the Legislature—the men selected by the people to represent them—to act for them—to promote their interests—the picked men of the State, should conspire to reduce the State to the verge of bankruptcy, to beggar their constituents, to slaughter whole herds of the finest cattle in the Commonwealth, to destroy the cattle upon a thousand hills, to ruin the trade in beef and milk and butter and cheese, to interrupt the business of farming all over the Commonwealth, to ruin the drovers and butchers, and to discourage every department of agriculture—and all for what? Why, to make themselves popular! To gratify a few white-handkerchief gentlemen who have got frightened because some cows have sickened and died? And in addition to all the above accumulated evils which they have inflicted upon the people, they have levied a tax upon themselves and their constituents of \$100,000! to pay a set of noddies for doing all this mischief. They have allowed themselves to be convinced that the disease among the cattle is contagious, notwithstanding certain venerable doctors in Boston do not think there is sufficient proof of the fact! Wonderful! Surely the Legislature will no longer claim to be the assembled wisdom of the Commonwealth. What can be the motive for imposing such an oppressive tax upon the poor people? Is the Legislature trying to ape the monarchical Governments of England, Holland, Belgium and Prussia, who have expended some millions of dollars to extirpate the same disease? Have they been creating offices to reward political partisans? What can their motive be? Because the Governor called them together, and gave them an opportunity to vote themselves \$50 apiece, did each member feel bound to do \$50 worth of mischief?

But seriously, has the Legislature reduced the Commonwealth to the verge of bankruptcy? Has it done irremediable injury to the best interests of the State? Has the Legislature injured Mr. Cheney to the amount of \$15,000? Has it converted the green pastures of the Commonwealth into a great slaughter-yard?

It has simply recognized existing facts, and put the people of the State upon their guard against the prevalence of a great calamity, and furnished them with the means of protecting themselves and their interests. If ever men came together with an earnest desire to ascertain the truth, and do their duty, the members of the Legislature came together with that desire, and devoted themselves faithfully to their work. It is easy to say that the commissioners have destroyed 640 cattle, and the Legislature has laid a tax of \$100,000. These numbers sound large to those of us who are not

accustomed to deal in large sums, and men who like to find fault, and who are addicted to making speeches, can ring the changes upon them, until they become a great affair.

But, Mr. Editor, let us look at a few figures in another relation, and perhaps it may tend to allay our fears. I have before me five numbers of the *New England Farmer*. I take them up and look at the number of beeves reported at Cambridge and Brighton markets for each week, and I find reported on

May 12.....	1700
" 26.....	1500
June 2.....	1650
" 9.....	1282
" 16.....	1125

Here are the reports for five weeks in May and June of the present year. The whole number amounts to 7,257. This divided by 5 gives 1451 as the average number for each of these five weeks. Now, if we suppose each of these beeves to weigh 6 cwt., and to be worth \$6 per cwt., which is certainly a very low estimate, both as to quantity and price, the whole value will be \$52,236. We notice that the sales have diminished about one-third during those five weeks. But we suppose this always occurs more or less at this season of the year. Veal is plenty and lambs are coming into market. The stall-fed cattle are mostly used up, and cattle are not quite ready to come in from the pastures, and green vegetables are in the market. But we notice especially the fact that the number of cattle needed for the market of Boston and vicinity is 1451 per week, even for this season of the year. A reference to the reports for the autumn and winter will, doubtless, show that the consumption is more than 2000 weekly. The Commissioners have killed 640 cattle, less than half a week's supply for the Boston market. We notice another fact; the value of the cattle slaughtered by the butchers of this neighborhood weekly is more than \$52,000, or more than half the tax of \$100,000. Now we suppose the sale has diminished in other parts of the State as much as at the Boston markets. If so, it cannot be doubted that more than twice as many cattle have been saved already, as the Commissioners have destroyed, and as the \$100,000 would hardly pay for two weeks supply of beef, we think this sum has been nearly saved already by the diminished consumption of beef, and will be saved more than twice over during the summer, so that we do not see that we have any cause of alarm lest the stock should run out, or the State be made bankrupt.

There have been fewer cattle driven to market from this State, thus far this season, and will be through the summer, than if there had been no disease among us, and there can be no doubt that there will be more cattle in the State, at the end of the season, than if the Commissioners had not killed a single animal, to say nothing of the numbers that will be saved from contagion through their efforts.

No more of the tax will be expended than may be needed, and we think there is reason to hope that not more than half the sum in addition to the \$10,000 previously appropriated, will be required. But the Legislature acted wisely in providing ample means, so that the Commissioners may be able to carry out all the measures which

they shall judge necessary to eradicate the disease. They should not be crippled in their efforts to accomplish the beneficent work in which they are engaged.

The price of beef is lower than it has been for some years, and probably will be so through the season, and this is owing in part to the panic occasioned by the disease.

The drovers, generally a very shrewd class of men, purchased cattle in the spring, and turned them into the pastures. They now fear they shall not get the prices in the autumn which they anticipated. Is not this the chief source of the hue and cry which has been raised against the Commissioners and the Legislature? There are men in the State, as experience has already shown, who are willing to get diseased cattle, or cattle which have been exposed to disease, off their own hands, without regard to consequences—such men cry out against any laws that restrain their movements. But if the drovers should not make as large a profit as they anticipated, the consumers of beef will have no reason to complain.

Should the price of beef be less than usual, the people of this State will not be the principal losers, for at least seven-eighths of the beef brought to our market comes from other States.

Yours,

A.

*For the New England Farmer.*

#### SPAYED COWS.

About the first of May, 1859, a gentleman at Newburyport had two cows spayed; one a fine Durham cow, four years old, six weeks after dropping her second calf; the other, an old native cow, eleven years old, but a good milker. In October, he had a third cow spayed. In April, 1860, a fourth, and the seventh of the present month, a fifth. The two first, which were altered more than thirteen months ago, are now in good condition. The young cow is tolerable beef. They give as much milk as they did a year ago. The milk is very rich, like the milk of farrow cows. The two cows that were altered thirteen months ago, together with the one spayed on the first of April, this year, give regularly thirty quarts of milk, every day. The cow that was altered in October, has been troubled this spring with garget, but is now getting well of it. The lumps in the udder are disappearing, and she will doubtless soon be in good condition. Their owner says he has his milk fountain gauged; he knows how much he will have daily, and his milk is better than ever before. He says he cannot afford to keep a good cow without having her altered. There has been no difficulty in the operation, and no injurious effect has followed in either case. The wounds all healed well, and the cows soon returned to a full flow of milk. J. REYNOLDS.

#### "TIRED AND SICK OF A MERCANTILE LIFE."

—We could be of more service to our correspondent, "*A Subscriber*,"—who is "sick and tired of a mercantile life," and who is determined to try farming,—by a personal interview with him, than by replying to his note through the *Farmer*. Indeed, it is not in our power to reply in writing, short of making a large pamphlet, or a book.

*For the New England Farmer.*

#### RAISING THE PEACOCK.

MR. EDITOR:—In the monthly *Farmer* for June, "Oak Hill" would like information on the raising of the peacock. If he would like my way of telling him, it shall be very much at his service.

In the first place, the peacock does not generally care much about more than one mate, though he will sometimes play the Mormon. They breed at two years old, at which time the cock has a small tail; at three years he is equipped in full.

The hen, a modest looking bird, lays, at two years' old, from three to five large eggs; she sets on them five weeks, at which time they will come forth perfectly fledged, and they generally go to roost the first night. The hen lays her eggs early in June—so, by the first or second week in July, she is off with her young, which she is pretty sure to bring out and bring up. There used to be a fabulous story of the cock; that he would kill the young if he found them before they had the tuft on their heads. The truth is enough to tell of him, and about as much as he can bear. And for the information of "Oak Hill," I will enumerate a few facts. He will not be confined; he will perch on the top of your highest chimney, or the ridge of your highest building, and give forth such screams, that any one who is fond of such things, will be induced to exclaim, delectable! If you have a hen with small chickens, he is sure to follow up and survey her brood with the most apparent inquisitiveness, though he never appears to hurt them at all, although extremely annoying to her. He appears to be determined on the mastery of the feathered family, which he generally effects. The young hen seldom lays more than three eggs, but as she grows older, she lays more, and finally comes up to nine or ten. They are easily raised, require little or no care, and are excellent for the table.

ALF. BAYLIES.

*Taunton, June, 1860.*

#### SHOEING HENS.

"A friend of ours boarding in the country found his hostess one morning busily engaged in making numerous small woolen bags, of singular shape. Upon inquiry he was informed that they were shoes for hens, to prevent them from scratching. The lady stated that it had been her practice for years to shoe her hens, and save her garden. These "shoes," (I believe they are not patented,) were of woolen, made somewhat of the shape of a fowl's foot with ease, after which it is closed with a needle and sewed tightly on, extending about an inch up the leg. Our friend observed that some of the biddies, possibly conceited with their new honors, appeared to tread as though walking on eggs—particularly was this the case when from the width of the shoe one would conceive that their toes might be a little pinched."

This is not a bad idea. We have seen hens shod before, and with good results; it is not necessary, however, to make a regular shoe for them; even a piece of cloth embracing their foot and secured to the leg, the bag being large enough to allow their toes to expand in it, will answer the purpose very well. By such an appliance, hen-yards and tight fences are unnecessary, the hens

are allowed their liberty all summer, and will lay better for it, and even the garden and field will be kept clean from many worms, bugs, flies and other vermin that injure vegetation. But for their *scratching*, hens do little harm and much good on cultivated grounds.—*Rural Intelligencer*.

*For the New England Farmer.*

#### HOW FARMING WAS MADE PLEASANT AND PROFITABLE,

AND THE BOYS THOUGHT IT RESPECTABLE.

The recent discussion of the subject in the Legislative Agricultural Society, and the attempts to introduce agricultural education as a branch of common school education, which seems to me as proper as instruction in the trade of a carpenter or mason, in a common public school, has led me, who am at least not a known talker, to pen a few lines for the *Farmer*.

Many years ago, in a remote country village, in a neighboring State, I knew two gentlemen of good education and public spirit. One, the skilful village physician, the other a tanner. The doctor owned and lived on a large farm, which was carried on by means of hired help mostly. The other had only the usual half-acre attached to country residences for the purpose of a garden. Both were zealous and active members and officers of the county agricultural society. In each of these families was a boy, enjoying the ordinary six months schooling of a country village, where they learned to read, to spell, arithmetic, geography and grammar. The doctor's son, at other times, was accustomed to work on the farm; he was allowed to own and dispose of a sheep or two, or now and then a colt, or to raise a heifer, or pair of steers, his own possession. A small piece of land was allowed him to experiment upon, and to crop as he chose, and the proceeds to be his own. The best agricultural paper of that day was taken in the family, or by the boy. He was encouraged by a wise father, and advised in his planting operations, and not laughed at, if there was a failure; and the proceeds of whatever he had been taught to consider his own, were cheerfully and promptly allowed him, either selling his crops and cattle himself, or being paid their market value, by the father. Quite an ingeniously constructed cheese-press was made by him, for which his mother paid him the most flattering compliment of using for the cheese of a considerable dairy. Afterwards, like most New England boys, desiring a better education than common schools afforded, he fitted for, entered and graduated with high honors, at a New England college. Being little inclined to professional life, he went back to the farm, and is one of the most successful practical farmers and stock-raisers of his county. Nor does he disuse his literary pursuits and advantages; occasionally, during the leisure portion of the year, at the solicitation of his less informed neighbors, he teaches school, which affords their children an opportunity to obtain an education at a much better school than ordinarily accessible to them. Occasionally he gives a lecture, or an agricultural address, and diligently through the journals of his State, instructs his brother farmers from his practical experience. Such a man elevates the pursuit he has chosen, elevates his

fellows by making more certain the results and avails of agricultural labor. Query: Cannot a good many farmers of this Commonwealth in like manner grow farmers on their farms, and find it a most profitable crop?

In the rather miscellaneous library of the other gentleman, between Shakspeare and Bunyan's Pilgrim's Progress, stood Fessenden's New England Gardener, and his boy, in addition to a thorough reading of that, was made to weed the garden, sometimes to sow it, and when he was larger, was made responsible for its whole care and ordering, whereby he came to love flowers and fruits, and vegetables, and to know how, and to like to raise them all; and always has retained rather a weakness for "digging in the garden," ever since. Would "botany, and agricultural chemistry, and how to farm," taught in the common school, have better impressed these boys with a love of the earth, and knowledge to make it yield its fruits? Let the boys have good agricultural and horticultural books and papers, for winter reading, a bit of earth to cultivate, and a share in its proceeds, and there will be more successful farmers, fewer idlers, disappointed tradesmen and professional men; and it will go far to answer the question, "How to make farming a pleasure and profit." D.

*Boston, February 28, 1860.*

#### THE SHEPHERD'S SABBATH SONG.

This is God's holy day—

Now, one last matin bell I hear,

Now, all is silent, far and near,

As in the fields I stray.

In prayer I bend the knee—

Sweet dread! mysterious whispering sound!

As if unseen ones all around

Were worshipping with me.

The sky their glories ray,—

The stainless heavens, far and near,

Seen opening to my visions clear

This is God's holy day.

*From the German of Uhland*

*For the New England Farmer.*

#### MUSINGS AMONG THE MOUNTAINS OF NEW ENGLAND.

May, charming May, has come and gone, and with it came the singing of birds, the peeping of frogs, the plowman's merry whistle, and the thousand and one happy associations that cluster about the tiller of the soil, to cheer his spirits and make his heart rejoice in the possession of his happy vocation. Foolish is the man who foregoes the sweet comforts of rural life—the associations of myriads of gay songsters that come up annually among the mountains from the muggy South, to warble their little notes of sweet eloquence to the farmer, as he tills these beautiful hill-sides and valleys—to snuff the balmy breezes of the trio of seasons, so richly freighted with the "balm of a thousand flowers"—the sowing and planting—the "merry hay day," the "rich golden harvest"—for a life devoted to the accumulation of wealth alone. Spring is the time for the singing of birds, but we must wait until June for the rose, beautiful rose! the queen of flowers, how beautiful! Has

the rose borrowed its hues of the rainbow, or has the bow kissed the rose, with a blush on its cheek? Meanwhile we wait, the fruit trees are white with incipient fruit, and from the instinct of hope we taste fruit in the blossoms.

Next, and now, is June, sunny, genial, smiling June; the month of the rose and the lily, the emblems of beauty and modesty! The rose, when a bud, a hundred leaves blushing with delight, so nicely folded over its glowing heart that the softest breeze sighing over the green earth might not suspect the secret of its being; a perfect flower, it breathes forth its fragrance upon the morning air, and drinks in its dews, and unfolds its beauty to the great sun of nature that has given it birth. Of the lily, the pure white lily, waving so gracefully upon its slender stem, scattering dust like golden tears from its spotless bosom, when disturbed by the winds, its lofty graces, its lovely simplicity—emblem of purity—sacred by reference—that which is so perfect cannot be described. The most perfect art cannot imitate, nor bear away the rich fragrance that lingers about it. Love, purity, and gentleness are typified in the rose and the lily, but in the material world these graces are looked upon as weaknesses.

Those sweet little flowers that greet us so early in spring, have gone,—the crocus, the violet and their kindred,—gone to rest until another spring. Would that spring were more frequent; but then 'twould be less charming. If it were all spring-time, then its beauties would be swallowed up in the monotony of seasons. With bounteous rains God has watered these hills and valleys—all nature smiles in newness of life, and the little babbling brooks are meandering to the waters that span the globe. New England, the mother of the school-house—the guardian of the church, the birth-place of America's great men, whose hills are so beautifully carpeted with nature's magnificent green, with scenery so sublime, so majestic—who does not sigh for a home in New England?

LEWIS S. PIERCE.

East Jaffrey, N. H., June, 1860.

*For the New England Farmer.*

#### SEASON, CROPS, FAITH AND PRACTICE.

GENTLEMEN:—For many weeks previous to the first of the present month, a very uncommon drought prevailed in this region, and the prospects of the farmer looked dubious indeed; all nature seemed to wear a gloomy aspect; the merry whistle of the husbandman was seldom heard, while an expression of fearful foreboding was visible in their countenances, as they toiled with the plow and the hoe; but their troubles were not to end here, for in the midst of all this, while our hearts were still sad, and we were anticipating a very meagre reward for our toils, news reached us, that the cattle disease was advancing upon us at a rapid rate, but, luckily, we were more frightened than hurt. The town authorities have acted promptly in the matter, and we think we have but very little to fear in that direction.

The refreshing rains that have fallen the past few weeks, have changed the face of nature very much; vegetation is advancing at a rapid rate, and the prospect for an abundant crop of all kinds with the exception of hay, never was better; hay,

we think, must be very light in many places. There is a prospect of an abundance of fruit of all kinds, and the farmers are beginning to take courage, showing a disposition to work while the day lasts; they read their Bible and *New England Farmer* when night cometh, and leave the future with Him who ruleth all things well.

The Bible shows us how and where to put our trust—the *New England Farmer* teaches us how to till the land, and if we carry out the instructions of the two, and let the flying reports in regard to the cattle disease, &c., go to the four winds where they belong, I think we have but little to fear in the future. Our farmers, as a general thing, spend too much time talking over flying reports, they give too much credence to the thousand and one rumors afloat in the world in regard to the farming interest, which has a tendency to injure the different agricultural pursuits more than anything else we have to encounter. *Dig more, and talk less*, is the advice of an old farmer, and constant reader of the *New England Farmer*.

W. C. A. CLINTON.

Claremont, N. H., June, 1860.

*For the New England Farmer.*

#### IN-DOOR FARMING.

MR. EDITOR:—Much is being said in your paper about the profits and pleasures of farming, *out of doors*, but nothing is said of the in-door labor, where the most of the hard toil without remuneration is found. It is healthy and pleasant work, when farmers get where they can have sufficient help in-doors, as well as out.

But with some exceptions, the farmer's wife is, as a general thing, the most hard-working class there is; she must be watchful, and never tiring, for if she is not able to perform to-day's labor, to-day, to-morrow she has got a double task to perform; to be sure, she is not driven to it with the lash, but the spur of necessity drives her on, and with the cares and labors of in-doors farming, she often has the cares of a large family. Farming is not, as a general thing, found to be sufficiently remunerative to allow of hiring in-doors work, so that all the labor and care must come upon the farmer's wife. If she has a large family, and the prospect good for more, still she must make and mend, bake and brew, wash and scour, churn and make cheese, milk and feed hogs, &c. Because she knows, if she hires, the family wants must be curtailed enough to meet the expense of hiring, when, with all her planning and hard work, she can get scarcely enough, for the husbandman is too apt to think that the products of the farm are sufficient, and all else are superfluities. So the wife must wait for the hens to lay, for from that source often comes all the change that falls to her share!

Please insert this in your columns, for if it does not meet with the views of some of your correspondents it may meet the case of their wives.

A FARMER'S WIFE.

Warner, N. H., 1860.

PLANTS FOUND IN NEW BEDFORD.—We have before us "A Catalogue of the Plants found in New Bedford and its Vicinity, arranged accord-

ing to the season of their Flowering. By E. W. HERVEY." Such a publication will lead to a better knowledge of the indigenous and beautiful plants that grow about us. We shall find it quite useful in our labors. The author will please accept our thanks for the copy.

#### AMERICAN POMOLOGICAL SOCIETY.

The eighth session of this institution will be held in the city of Philadelphia, commencing on the 11th of September next, at 10 o'clock, A. M., and will be continued for several days.

This society, the first national institution for the promotion of pomological science, was organized in the year 1848. Its sessions have brought together the most distinguished cultivators of our country; its transactions have embodied their various researches and ripest experience, and its catalogue of fruits has become the acknowledged standard of American pomology.

Its example has created a general taste for this science, inspired pomologists with greater zeal, and called into existence many kindred associations. Its progress has been remarkable and gratifying, but it still has a great work to perform. Its general catalogue should, from time to time, be enlarged and perfected, and local catalogues formed, embracing the fruits adapted to each State and Territory of the Union. The last of these suggestions was made by the chairman of the general fruit committee, at the seventh session of the society, in the year 1858. This has been carefully considered, and is deemed worthy of special attention. It is, therefore, earnestly recommended that each State Pomological, Horticultural, or Agricultural Society, charge its fruit committee with the duty of collecting information, and presenting the same, with descriptive lists of fruits adapted to their location.

The importance of this subject, and the increasing value of the fruit crop of the United States, call for a prompt and cordial response to this request,—for a careful preparation of said list, and for a full and able representation, at the approaching session, from all parts of the country.

The various State committees of this society are expected to submit accurate and full reports of the condition and progress of fruit culture, within their limits, together with definite answers to each of the following questions. These reports, it is desirable, should be forwarded to the chairman of the general fruit committee, Hon. SAMUEL WALKER, Roxbury, Mass., if possible, as early as the 1st of September, or to THOMAS W. FIELD, Esq., Secretary, Brooklyn, New York.

What *six*, *twelve* and *twenty* varieties of the apple are best adapted to an orchard of *one hundred* trees for family use,—and how many of each sort should it contain? What varieties, and how many of each, are best for an orchard of *one thousand* trees, designed to bear fruit for the market?

What *six* and *twelve* varieties of the pear are best for family use on the pear stock? What varieties on the quince stock? What varieties, and now many of each of these, are best adapted to a pear orchard of *one hundred* or of *one thousand* trees?

What are the *six* and *twelve* best varieties of the peach? What are the best varieties, and how

many of each are best adapted to a peach orchard of *one hundred* or of *one thousand* trees?

Answers to these questions should be made from reliable experience, and with reference to the proximity or remoteness of the market.

Held, as this convention will be, in a city easily accessible from all parts of the country, it is anticipated that the coming session will be one of the most useful the society has ever held. Societies, therefore, in every State and Territory of the Union, and the Provinces of British America, are requested to send such number of delegates as they may choose to elect. Fruit-growers, nursery-men, and all others interested in the art of pomology, are invited to be present—to become members, and to take part in the deliberations of the convention.

In order to increase as much as possible the interest of the occasion, members and delegates are requested to forward for exhibition as large collections of fruit as practicable, including specimens of all the rare and valuable varieties grown in their respective districts, and esteemed worthy of notice; also, papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his contributions, and present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable after its organization.

Societies will please transmit to the Secretary, at an early day, a list of the delegates they have appointed.

Gentlemen desirous of becoming members can remit the admission fee to THOMAS P. JAMES, Esq., Treasurer, Philadelphia, who will furnish them with the transactions of the society. Life-Membership, \$20; Biennial, \$2.

Packages of fruits may be addressed to THOS. P. JAMES, 630 Market Street, Philadelphia.

MARSHALL P. WILDER, *President*.

*For the New England Farmer.*

#### TURKEYS.

Gov. BROWN:—My little boy wants me to put into the *Farmer* an account of the wonderful feats of our turkeys, and accordingly I submit the facts to your disposal. We have fed white turkeys for several years, the color, like the Caucasian complexion, being transmitted by descent. Sometimes in the autumn a flock of them on the hill-side look like a shepherd's charge. Well, now for the wonder. One of our turkeys laid fifteen eggs and went to setting. The eggs in the nest still went on increasing in number, so that we supposed another turkey laid to her, and took care to shut her out of the barn. Eggs, however, continued to be laid, till they reached about thirty, when the turkey hatched the fifteen eggs she began to set with. Meanwhile it turned out that the other turkey had a nest of her own in another place, and she had gone to setting; so we were forced to the conclusion that the setting turkey must have kept on laying. This was fully verified after hatching, for she has still kept on laying, and has a nest where she may soon be expected to set again.



What, then, some reader may inquire, will become of her little turkeys? Why, Mr. Gobbler will look after them and brood them at night. He is a very tender parent, I can tell you. Last year a little turkey got lamed, and had much difficulty in getting over walls with the others. The mother with the ninety and nine would move on despite his cries, but the old gobbler would fly back and forth, never deserting the lost lamb till some place was found where he could get over.

Turkeys are easy to raise if you are careful for the first five or six weeks. They should then have eggs boiled hard and chopped fine and soaked in milk, afterwards some dough. They must be kept in during storms, and while the dew is on, during this early period. Afterwards the summer flies and grasshoppers will relieve you from feeding, and furnish the turkeys sumptuous repasts. They are useful in clearing the fields of insects. They are sad strollers, constantly perambulating, like the restless spirits who sing,

"We'll wander this wide world over,  
And then to another we'll go."

But if you have ample space, they are a profitable fowl to raise. F.

Wayland, 1860.

#### PLUM CULTURE.

BY PRUNUS GAGE.

There is no good reason why we should not have good crops of plums. The most difficult enemy to be conquered is the curculio, and there is evidence during the past season that this insect could be beaten from the field if we only go at him with a determination to "carry the war to extremities, and give no quarter." It is not right that on our clay soils we should be obliged to give up this delicious fruit; and the full crops secured by S. O. Knapp, of Jackson, the present year, prove that plums can be grown. His trees the past autumn were very fully laden with very luscious fruit. But he attended to the curculio at the proper season. His plan was the sheet and mallet, every morning. Some of his trees had been paved around for a few feet from the tree, and he observed that the curculio did not work so freely in the branches over the pavement as they did where they were over the ground. Many try the sheet and mallet, but leave it off before the season is over. They don't stick to it. Others let their poultry attempt the work, but the poultry can only destroy a part, from the fact that the curculio is a cunning insect, and soon buries itself out of the reach of all kinds of barn-yard fowls.

That a crop of plums is one of the most profitable known there is no question. The point to be come at, is how to raise them. The soil in every case should contain clay, or be a somewhat stiff loam, and in choosing a location, the yard should be by itself, so that it may be separated or fenced in whenever it is deemed necessary. A yard a hundred feet square will afford room for about forty trees, set about fourteen or fifteen feet apart in the rows, say seven rows of six trees in each row. The ground should be well tile-drained and should be trench plowed, before the trees are set, and then the following seven varieties, a row of each kind being grown, may be selected,

viz: the Imperial Gage, the Jefferson, Bolmar Washington, McLaughlin's, Coe's Golden Drop, Reine Claude de Beval, Blue Imperatrice. — The soil in the plum yard should never be permitted to grow grass or any other crop whatever, especially after the trees begin to fruit, or before, unless absolutely necessary, then only such crops as turnips, parsnips, carrots or potatoes. No corn or grain should ever be permitted amongst fruit trees of any kind.

After the trees have matured so that fruit is set from the blossoms each year, then the ground should be pulverized and rolled as solid as possible each spring before the season for the curculio. During the curculio season, we would again roll it once a week, and turn in the poultry, especially broods of ducks, to devour all the insects which might be found troublesome to the fruit. Besides this treatment the trees should be shaken every morning to dislodge the curculios, so that they might come within the reach of poultry, and be destroyed. By this system it is claimed, first, that the plowing turns down to a great depth the insect, which has just reached the surface and is ready to commence operations with the arrival of the season; second, that the rolling consolidates the surface, and makes it more difficult to work his passage out, and presents a smooth surface, so that should any of the larva fall from the tree, they do not so readily find crannies and nooks into which they can crawl and hide from the entomological researches of the ornithological tribes; third, the jarring of the trees should be steadily followed up, because, if any insects do ascend to attack the fruit, the only plan to save the year's fruit is to attend to their destruction at the proper time, and on a rolled surface they are as easily destroyed either by hand or by poultry, as though they were on a white sheet.

In addition to this treatment, after the curculio season is over, the yard should be topdressed with half a bushel of salt, and a couple of bushels of air-slaked lime, with a good coating of marsh muck compost late in the fall.

With this treatment a crop of plums may be raised as easily as a crop of cherries, and every tree in the course of three or four years will easily yield a profit of from five to ten dollars for every one invested. There are no difficulties in the plum culture that cannot be conquered, if we only use the means which common sense points out as necessary to follow. But it will not do to try for one season, and imagine that all further work or care is to be dispensed with. The work must be performed every season, if we would have a crop every year; just bear that in mind.—Michigan Farmer.

#### ONE BRICK WRONG.

Workmen were lately building a large brick tower, which was to be carried up very high. The architect and the foreman both charged the masons to lay each brick with the greatest exactness, especially the first course, which were to sustain the rest. However, in laying a corner, by accident or carelessness, one brick was set a very little out of line. The work went on without its being noticed, but as each course of bricks was kept in a line with those already laid, the tower was not put up exactly straight, and the high-

they built the more insecure it became. One day, when the tower had been carried up about fifty feet, there was heard a tremendous crash. The building had fallen, burying the men in the ruins. All the previous work was lost, the materials wasted, and worse still, valuable lives were sacrificed, and all from *one brick laid wrong* at the start. The workman at fault in this matter little knew how much mischief he was making for the future. Do you ever think what ruin may come of *one bad habit*, one brick laid wrong, while you are now building a character for life? Remember, in youth the foundation is laid. See to it that all is kept *straight*.

#### PRESERVING SHINGLES ON ROOFS.

The following article we copy from the *Rural Intelligencer*, as worthy of attention by those who desire to preserve the roofs of their habitations and buildings :

"Some paint roof-shingles after they are laid. This makes them rot sooner than they otherwise would. Some paint the courses as they are laid; this is a great preservative, if each shingle is painted the length of three courses. But about as sure a way to preserve shingles, and that with little or no expense, is a mode recommended in a letter to us by Hon. David Hunter, of Clinton, on the 23d of February last. We republish so much of his letter as relates to this subject, in hopes that it may be of service to many of our readers: "There is one thing more that nearly all people know, if they would only attend to it: that is, to sprinkle slaked lime on the roofs of their buildings in rainy days. Put it on considerably thick, so as to make the roof look white, and you will never be troubled with moss; and if the shingles are covered ever so thick with moss, by putting the lime on twice, it will take all the moss off, and leave the roof white and clean, and will look almost as well as if it had been painted. It ought to be done once a year, and, in my opinion, the shingles will last almost twice as long as they will to let the roof all grow over to moss. I tried it on the back side of my house, ten years ago, when the shingles were all covered over with moss, and they appeared to be nearly rotten. I gave the roof a heavy coat of lime, and have followed it nearly every year since then, and the roof is better now than it was then; and, to all appearance, if I follow my hand, it will last ten or fifteen years longer. The shingles have been on the roof over thirty years. There is no more risk about sparks catching on the roof than on a newly shingled roof. Those that do not have lime near by, can use good strong wood ashes, and these will answer a very good purpose to the same end."

**TOBACCO.**—Gen. John H. Cook, of Virginia, has recently written a pamphlet entitled "Tobacco, the Bane of Virginia Husbandry." He says:

That tobacco is the bane of Virginia husbandry, will be shown under the three following heads: 1st. It requires more labor than any other crop. 2d. It is the most exhausting of all crops; and, 3d. It is a demoralizer, in the broadest sense of the term.

#### EXTRACTS AND REPLIES.

##### A QUEER HEIFER.

I have a heifer fifteen months old the 20th of June; her bag began to grow in April so that it attracted my attention. It has increased in size from the first, and about the fifteenth of May I found that her bag contained milk, and concluded she must be with calf, as her bag, too, has till now grown larger. But on the eleventh of June she was in heat for the bull.

I do not milk her for fear of consequences, leaking her milk, &c., hereafter; think her bag might contain a quart of milk or thereabouts. Think she cannot be "springing" bag from natural causes; and as it seems to me a "strange freak," I report the case for wiser heads than mine. Will your readers please notice, (not exclusively the Editor,) and inform me if they know of such instances, and the course pursued.

Manchester, N. H., June, 1860. JAMES WALKER.

**REMARKS.**—We have a fine cow now, one that we raised on our own farm, that gave an abundance of milk before having a calf. We turned her to pasture in April, at two years old, with other heifers. Her bag was then hardly discernible, and of course, "as dry as a charity box." On going to her ten days after, we found her bag very much enlarged, and took away nearly or quite a gallon of milk from it. She continued giving a liberal mess until the middle of September following, when she dropt a fine calf, which we now have, and is one of the handsomest yearling heifers in our knowledge. Young heifers will have their own ways, as well as other folks, but we cannot tell you the why or wherefore!

##### CATTLE DISEASE IN CONNECTICUT.

The all-absorbing topic of conversation among us at the present time is the cattle disease; and so high does the panic run that there is scarcely a town around where there are not supposed cases of the disease already existing; but probably there is not in reality a case of it this side of the Connecticut river; yet there is great reason to fear that it may at any time break out in many places around us. Several droves have been driven through here, and others are lying back ready to come, all of which are supposed to have been bought in Massachusetts near the infected district.

My nearest neighbor is an exile from Russia, is highly educated, and is teacher of languages in our family boarding-schools. He has also been an officer in the army. He says that in the earlier stages of the disease it can be cured. He is to give a lecture before the farmers' club in this place tomorrow evening upon the subject, and it is supposed that he is well acquainted with the disease and its treatment.

June 10.—The lecture was well attended, and was of such a character as to convince all who heard it that its author, (M. Schmiedeberg,) is well acquainted with the disease in all its stages, and also of its treatment in his native country, he having been a veterinary surgeon in the Prussian army, and two years a student in the medical schools of that country. He has been with us a year, and was known in the county before he came here. He has gained the respect and confidence of all who know him, and it is fully believed that no one in our country is better qualified to treat the disease than he, he having been familiar with its treatment in Germany.

T. L. HART.

West Cornwall Ct., June 13, 1860.

##### HORSE RAKES—MOWING MACHINES.

What is the price, each, of Bradley's and Whitcomb's Horse Rakes, and of Wood's Mowing Machine? Rockville, June, 1860. J. R. STARK.

**REMARKS.**—We have made inquiry, and cheerfully answer the questions of our correspondent, but wish to say that we have no connection with any agricultural warehouse, and when we answer such inquiries, are obliged to go purposely to get the information.

Bradley's horse rake is \$10; Whitcomb's, with

wheels, is \$22, and without wheels, \$16. Wood's one-horse mower is \$70, and the two horse \$80. All for sale by Nourse & Co., 34 Merchants' Row, Boston.

#### CUT WORMS—COAL ASHES—WOOD ASHES—SQUASHES.

I should like to know if there is any remedy for the cut worm which is so destructive on our New England farms?

Also, if it will be of any advantage to put a top dressing of fine sifted coal ashes on and around potatoes and corn that are planted on new land?

Are wood ashes of any advantage on squashes as a remedy for the squash bug? Any light upon these questions will be thankfully received by G. E. M. Somerville, June, 1860.

REMARKS.—We are not aware that there is any grand specific for cut worms—they are quite destructive at present, cutting down the young mangolds and cabbages sadly.

Coal ashes are of some value to the corn and potatoes.

Wood ashes, frequently sprinkled upon squashes, will prevent, in some measure, the ravages of the squash bugs. When they have performed that office they are exceedingly valuable in promoting the growth of the plants.

#### STUMP PULLER—QUERIES.

I have a piece of land containing about four acres, which has until recently been covered with a heavy growth of pine. The land is somewhat elevated, all but a small piece, which is low and moist. I wish to know if it would be profitable to pull the stumps out and cultivate the land? (a.)

What is the price of a stump-puller, and how many men will it take to operate it, and how many stumps can be pulled out in a day? Could one be hired? There is no young growth coming up, and perhaps it would be better to plant it with chestnuts. How should they be planted, and what time of year would be best?

GRANITE STATE READER.

REMARKS.—(a.) Some persons would make it profitable and others would not. It depends upon circumstances, such as the possession of manure, skill, &c., and how much other land one has under cultivation.

A good stump puller may be purchased for \$50 or \$75. Cannot answer your other questions.

#### SUPERPHOSPHATE FOR TURNIPS.

I have a piece of land from which I wish to raise a good crop of turnips; will you be kind enough to inform me which of the foreign fertilizers will be best to use for that crop, how much to the acre, and the best way to apply it? The land is light, and not rich.

Templeton, June 27, 1860.

SUBSCRIBER.

REMARKS.—Use Coe's or Mapes' Superphosphate of lime, 300 pounds to the acre; sow broadcast and harrow.

#### THE AXE IS GROUND.

Having laid aside the little, worn-out grind-stone with wooden shaft that groaned and squeaked so dreadfully, about a year ago, and adopted a good new one, with friction rollers and a treadle so as to be turned by the foot, I have managed to keep the axe in pretty good condition for chopping; it cost \$5, it is true, and a day and a half's work to get it hung and properly trimmed down for grinding, but it has nearly or quite paid for itself in the saving of time in putting tools in order. When the scythe was dull, which was often the case in this stony country, one could go and grind instead of two, and do the grinding in less than half the time it used to take on the old one, and do it better too. Brother Farmer, don't use the old, hard-faced, worn-out grindstone any longer—get a new one and a good one—you won't be sorry.

Rippon, Vt., June, 1860.

R. A. D.

#### CRANBERRIES.

I wish to inquire through the *Farmer* whether cranberries will grow well or flourish on narrow strips of swampy land, or on the margin of small streams, where the land is wet and swampy, but seldom overflowed with water?

A. E. WILSON.

Marlow, N. H., 1860.

REMARKS.—Not on all such places, but on many of them. Dig up the surface, haul on an inch or two of sand or gravel, set the plants within six inches of each other, and keep all grass and weeds out. Try this process on a small scale, and if it succeeds well, enlarge, and set the plants farther apart, and they will cover the ground by spreading.

#### SEEDING POTATOES.

I planted two bushels of what is called the black potato, last spring, putting two small pieces in each hill. The land was sward, plowed the fall before, manured in the hill lightly and from the two bushels of seed I got sixty-six bushels of as good, large and sound potatoes as I ever saw. I have tried large potatoes for seed, until I am convinced it is worse than throwing seed away.

#### THE WHEAT CROP.

On the 9th of April last I sowed one acre of land with one and a half bushels of wheat, and cleaned up in December twenty bushels of good sound wheat. I think the rats carried off one bushel, and that high winds and rains injured it three or four bushels more. I think our farmers can raise as much wheat per acre, as they can anywhere in New England.

Derry, N. H., April, 1859.

W. H. W.

REMARKS.—The two or three short articles which follow this happened to get "under the copy drawer,"—not under the table—and only came to light to-day. Some of them may be a little out of season, but their appearance now will show that we appreciate the favors of our correspondents. Besides this, they will all be preserved in the monthly *Farmer* for future reference.

#### THE WHEAT CROP.

Most of our farmers raise from one to three or four acres; we have generally used ashes mixed with the barn manure, but don't know which is best, to mix the ashes with the manure or put them on separately. I wish you would inform me which is the better way, or whether lime, mixed or otherwise, would be beneficial to a wheat crop.

MINOT R. PHILLIPS.

Nelson, N. H., April, 1859.

REMARKS.—Sow the ashes on the land just before it is harrowed the last time. Lime may be added in the same way. It is always best, we believe, to use alkaline substances by themselves.

#### SEEDING POTATOES.

I was much interested in the remarks of H. Poor, in the last number of the *Farmer*, upon raising potatoes. Last year I purchased one bushel of a choice kind of potatoes to plant, and wishing to make the most of them, I cut off the stem end of the largest potatoes, so as to have one or two eyes; the rest of the potato was cut so as to have two eyes to a piece as nearly as could be cut; the smaller ones were cut once lengthwise. Each kind was planted separately, one piece in a hill. In the fall we dug thirty hills of each kind; the yield was as follows: the seed end 52 lbs., small size, and a great many little ones; from the halves 62½ lbs., larger size, not so many little ones; the stem end 55½ lbs. very large, nice potatoes and but few little ones.

I never plant small potatoes if I can get large ones. My custom for twenty-five years has been to plant large whole potatoes; but last year I cut them once, applied lime, and put one piece in a hill, with occasionally a row of whole ones. At harvest time, I was satisfied that the yield from the cut seed was the best.

Cubot, Vt., April, 1859.

MILTON FISHER.

*For the New England Farmer.*

#### SIZE AND USE OF HAY CAPS.

MR. EDITOR:—As I disagree with you in the size of hay caps, I will state my reasons why. You say a "hay cap should be two yards square." I prefer one four feet square to any other size to use on hay, and I have tried all sizes, from three-fourths of a yard to two yards square.

My first objection to one two yards square is the cost. Few farmers would think they could have a proper number of caps at the cost of the two yards square. Every man who cuts much hay wants at least one hundred caps. Now one hundred caps a yard square will cost \$10; one hundred four feet square will cost \$17, and one hundred two yards square will cost from \$40 to \$50, as there is the sewing besides the cloth. Almost any farmer would think he could spend \$10 for caps, while few would think of spending \$40.

A hay cap two yards square will measure from corner to corner, across the midst to the end of the loops, three yards. Most folks do not cock up hay in cocks large enough to take so large a cap. The corners would reach to the ground. I think it much the best for the hay to have it put in small cocks, as the hay makes much better, and it is much easier to cock up, open, &c., in small cocks than in large ones.

A cap from a yard to a yard and a third square, if well put on, will keep a cock of hay through a storm so that you cannot tell the hay after it is put in the barn from hay that had not been out in a storm.

The best way to get hay caps is to buy the cloth the width you want it, and tear it up into squares, and put loops in the corners. The sticks should be from eighteen to twenty inches long. I would not let any one hem, paint or varnish mine, if they would do it for nothing.

I make this statement, Mr. Editor, not to argue the subject with you, but to encourage people to get hay caps who would not think they could afford to buy them at a cost that the two yards square would be. I have often felt that every cap that was on a cock of hay through a long storm had paid for itself, just in that one use.

A man that cuts forty or fifty tons of hay wants two hundred caps. Caps properly cared for will last a great many years. I think I have them now in use that I have used for twenty years.

*Hollis, N. H., June, 1860. ED. EMERSON.*

REMARKS.—Excellent, friend Emerson. We are not at all tenacious of our opinion about the size, but recommend to all to try for themselves. As we view it, large caps are no more expensive than small ones, because you will not need so many of them; and then a small cap requires just as many of the operations to put it on as a large one, so that in this particular there is an important gain. Try the cap—if the season is a "catching" one, you will save more than their cost this year.

TO MAKE STEERS HOLD UP THEIR HEADS.—Having seen in a former number of the *Rural* an inquiry from "O. W. T." how to make steers hold up their heads while at work, I will give you my

own experience and observations in relation to it. In the first place, be very careful that the yoke has the right draught so that it will not choke the steers when they are at work with their heads up. Secondly, do not tire them, as it worries and causes them to droop their heads. Thirdly, when it is desired to stop the steers, make them understand the word whoa; speak quick and distinct, and when they are stopped turn the butt of the whip and tap them under their jaws lightly, until they bring their heads up to the proper place.—*Rural American.*

#### FERMENTATION OF MANURES.

It would seem from an article in a late number of the *Mark Lane Express*, that although English farmers are as well satisfied that fattening animals is a losing business, as our friend Pinkham is that raising corn don't pay, yet "shed-feeding," or as we should say, stall-feeding, is steadily on the increase there. The editor says, few look upon it as a profitable branch of husbandry; the general bearing of experience goes to prove that the food which is consumed in the "fattening-shed," is seldom paid for in the increased value of the animals by which it is consumed, and yet it is generally considered an essential accompaniment of good management! But instead of asking how long it will take the English farmers to get rich "at this rate," he finds a solution of the apparent mystery in the manure produced. The importance of the proper management of the manure heap is therefore discussed at some length. We copy a paragraph on fermentation, which may have some bearing on the question whether manure does best in barn cellars or in the open air.

Without going into an explanation, which would be tedious to some of our readers and unnecessary to others, we may remind them that during the time the manure is rotting we have great changes taking place in the heap, and the most valuable ingredients, as well as those of little or no importance, alike take part in the fermentation. They change their character, their form, and their properties, according to the circumstances attending their management. We are all well aware, from the light which experimental researches have thrown upon the subject, that the ultimate value of the dung as a fertilizer depends very much upon the product of this fermentation; so much so, indeed, that two lots of manure, originally of the same value when taken from the bullock-shed, may become of very different quality when ready for use upon the land, even when equal care has been shown to avoid loss by drainage. In fact, the difference may be traced entirely to the management of the dung whilst it is rotting. This fermentation is generally allowed to take its own course. All that is done is to avoid loss by drainage, or injury from the fall of water upon it. Valuable as these precautions are, still the latter is capable of being carried so far as to become productive of great loss. It has been very clearly shown that when the manure is fermenting it

should be kept moist, and we may even go beyond this, and say that the more rapid the dung heats the more liberal should be the supply of moisture. If it is not present naturally, then we would recommend its addition to the heap. We are fully convinced of the great difference in the value of manure, according as it has been kept moist—not too wet—or it has been allowed to rot in a dry condition. We feel that upon the production of a good-quality manure much of the profit of shed-feeding depends; and as it has been said of old “that a word to the wise is sufficient for them,” so now also is it true of our readers. We trust that the hint we give to watch more closely the management of their manure heaps will not be overlooked.

#### THE CULTIVATION OF NATIVE GRAPES.

The following is Mr. E. A. BRACKETT's report to the Fruit Committee of the Massachusetts Horticultural Society, in relation to the cultivation of our native grapes.

*To the Chairman of the Fruit Committee:*

DEAR SIR:—To your request that I would communicate to you my method of cultivating our native grapes, particularly the Diana, the nature of the soil, system of training, &c., I cheerfully reply, not that I expect to throw any new light on the subject, or that my mode will be found to differ materially from that of others. The growing interest felt in this department, the certainty that it must continue to occupy a prominent position in the horticultural art, assures me that the experience of any one, however simple, may be of service.

My little vineyard is situated on a side hill, facing the west, and protected on the north by a belt of pine woods. I should have preferred a more southern or eastern aspect. The soil is by no means what would be called a strong one; it consists of from four to six inches of turf mould, with a reddish subsoil about two feet deep, resting upon a bed of blue gravel. In preparing for the vines the ground was trenched two feet deep, and the top soil put at the bottom. Stakes eight feet long were then set at the distance of seven feet apart each way; one vine was planted to each stake, and immediately cut down to two eyes.

And here let me say a word as to the time of setting the vines. My experience is greatly in favor of fall planting. A vine set in the autumn (and it should be done as soon as the leaf falls) will in three years be as strong and as capable of bearing a crop of fruit as one of five years old set in the spring. The training of my vines is at once simple and ornamental. The first year two shoots are allowed to grow, and as they elongate, are carried spirally, both in the same direction, about five inches apart, around the stake, and this is continued until they reach the top. The laterals are allowed to grow at random. In the fall they should be pruned back to within eighteen inches of the ground, and the laterals to one eye.

Second year, continue the two canes from the two uppermost eyes, as directed in the first year. The laterals will require summer pruning. In the fall cut back the canes to within eighteen inches of last year's wood. Continue this course until the vine is established the whole length of the

post—whatever surmounts it, is to be cut back. The fruit is borne upon the side shoots, and the pruning is on the short spur system. The form of the vine may be shaped to the taste of the cultivator; that of the pyramid is decidedly the best.

Those who understand the nature of the vine will readily perceive the advantage this system offers. The vine is thus kept at home. The light and air circulate freely through it. The buds break evenly; there is no tendency in one part to rob the other of its due proportion of sap, and when once established, requires less care than any other mode of training.

Some of my vines, the first year after planting, were watered with sink-drain water, and being satisfied that it injured them, I have discontinued the practice, and have since root-pruned them, in order to check too free a growth of wood. Many of my neighbors injured their vines by giving them large quantities of stimulating manures, such as fresh stable manure, dead horses or other animal manure; thereby exciting them to make an increased growth of long-jointed wood. I grow my vines for the fruit, and am satisfied if they make a few feet of short-jointed wood, and the only manure (if manure it may be called) which I now give them is a top-dressing of anthracite coal ashes.

The Diana, with me, has proved a great grower and free bearer—the bunches of good size, and the berries large, some of them measuring seven-eighths of an inch in diameter. It is a matter of surprise that this, the most delicious of our native grapes, should have received so little attention, while new varieties, greatly inferior to it in point of flavor, have been heralded as the greatest acquisition to our list of hardy vines.

The past season has not been favorable to the ripening of out-door grapes.

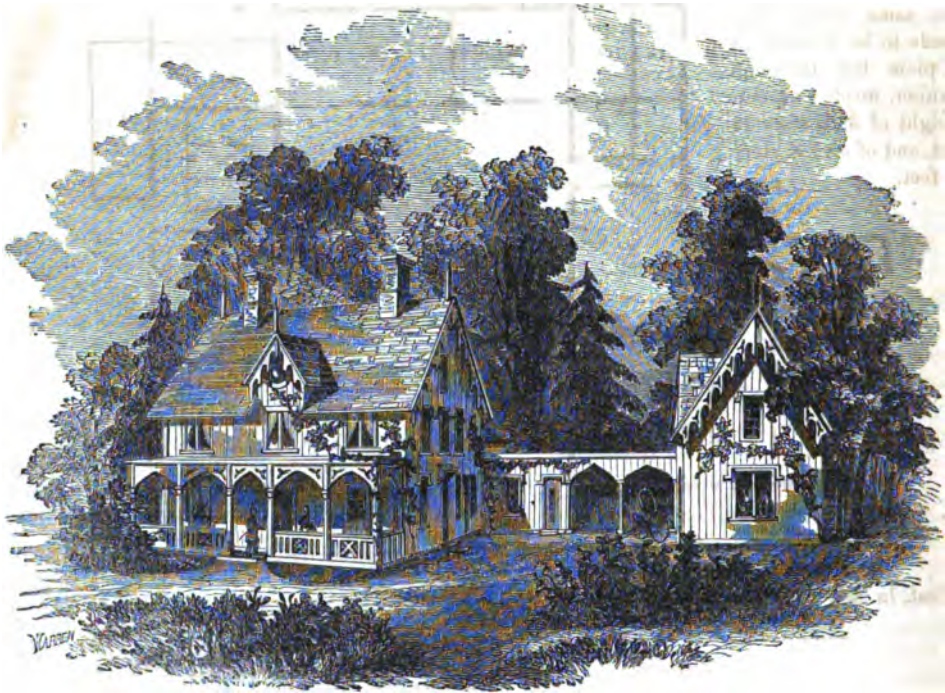
Respectfully yours, E. A. BRACKETT.

FRUIT GROWING AT ST. JOSEPH, MICH.—A correspondent of the *Ohio Farmer* speaks in high terms of the success of fruit raising in this section.

The certainty of a crop for a few miles along the lake, and the facilities for marketing, the cheapness of land, and the pleasant locality and lake breezes, all combine to make it one of the most seductive to the amateur, or market fruit-grower, in the West. The trees are never injured by the cold in winter, as the lake never freezes, and the thermometer rarely ever gets below zero, when a few miles east or south, it frequently is down twenty degrees below zero. Many may think this is an over favorable account of this locality, but I am only giving my experience here, which is short, hardly enough to become acclimated—two winters. I came from Missouri, a little over a year ago, and bought a place for three thousand dollars, and my peach and pear crop sold to a dealer here for nineteen hundred and sixty-one dollars. I have only three hundred and eighteen bearing peach trees, and one hundred pear trees, the latter quite young. This is the reason for the faith that's within me.

REMARKS.—Dry your peaches, and send them East—we will give you 15 to 20 cents per pound for them.





### COMPLETE FARM HOUSE AND STABLE.

DESIGNED FOR THE NEW ENGLAND FARMER, BY G. E. HARNEY, ARCHITECT, LYNN, MASS.

In addition to the conveniences afforded by a former design for a *Complete Farm House*, we have included in our present plan a large shed for the market-wagons, and a stable connected with the main house, and furnishing room for horses and carriages, pigs and hens, with ample storage room for fodder in the loft. The arrangement of the plans of the house and stable is as follows :

No. 1, the veranda, is 8 feet wide and extends across the whole front of the house ; it opens into the main hall, No. 2, which is 11 feet wide and 24 feet long ; No. 3 is the parlor, 16 feet square ; No. 4, living room, 16 feet by 20, furnished with a large closet, No. 9, under front stairs. Crossing a small passage, No. 8, where is also a door leading to the yard, we reach the kitchen, No. 5, measuring 16 feet by 18, and containing a large oven and fire-place ; No. 6 is a large store-room, 8 feet by 9, opening directly into the kitchen ; No. 7 is a bedroom, 15 feet by 16. At No. 10 is another entry, 3 feet wide, leading to the yard ; here are also stairs to the chambers and cellar ; No. 11 is a scullery or wash-room, 8 feet square, with a

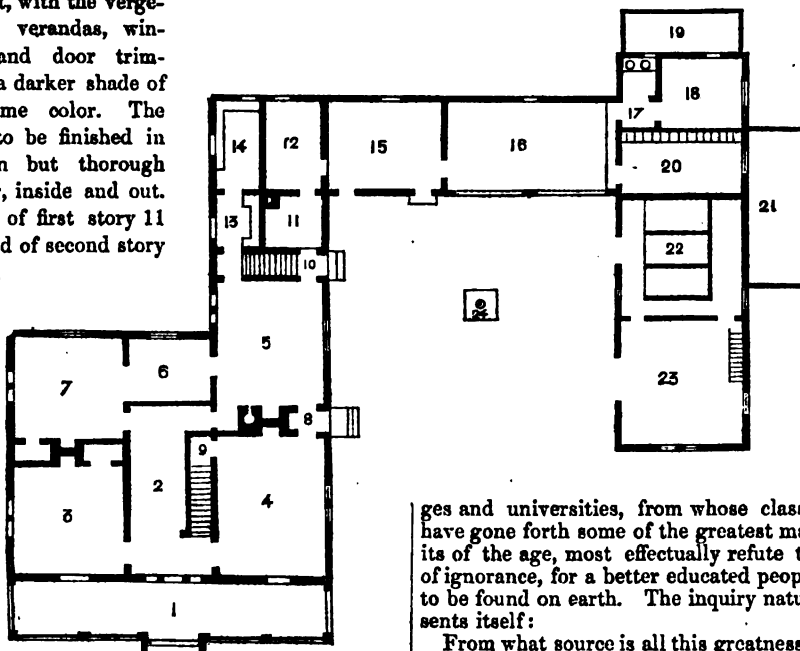
chimney in the corner ; No. 12 is a tool-room and shop, 8 feet by 13 ; No. 13 is a pantry, fitted up with sink and shelves ; No. 14 is a dairy, 6 feet by 13. From the work-shop a door opens into the wood-house, No. 15 ; this is 13 feet by 16, and connects with the open carriage-shed, No. 16, 13 feet by 24.

The barn is planned as follows : No. 17, passage leading to the privy and to the covered portion of the pig-sty, No. 18. No. 19 is the yard connected ; No. 20 is a hen-coop, 9 feet by 18, fitted up with a couple of rows of nests, and opening upon the hen and stable manure yard, No. 21 ; No. 22 contains stalls for three horses, with feeding troughs in front ; No. 23 is a carriage-shed and harness room, 18 feet square ; at No. 24—in the yard—is a pump with a horse-trough attached.

The second floor contains six bed-rooms besides bathing-rooms and closets. The attic may be left unfinished, and used for storage.

*Construction.*—These buildings should be built of wood, covered with plank in the vertical and battened manner, and painted some pleasing neu-

tral tint, with the verge-boards, verandas, windows and door trimmings a darker shade of the same color. The whole to be finished in a plain but thorough manner, inside and out. Height of first story 11 feet, and of second story 9½ feet.



Cost, in New England, about \$4000.

G. E. H.

*For the New England Farmer.*

#### NEW ENGLAND.

MR. EDITOR:—New England is a cold, rough, inhospitable region; the soil is for the most part sterile and rocky—instead of level plains and fertile valleys, we behold for its most common scenery lofty mountains and rugged cliffs. Its winters are long, cold and dreary, replete with recollections of drifting snows and frozen limbs. Its summers are hot and scorching; the tillage of the soil is a continual war between man and nature. It would seem that at some previous time, far back in long past geological epochs, New England must have been the theatre of fearful convulsions in nature, which rent its surface into almost every conceivable form; even the very streams seem to partake of the same spirit of strife, for instead of flowing smoothly along in their accustomed channels, they clash furiously above their rocky beds, agitated by a continual turmoil, chafing and foaming in their impotent rage.

From the nature of the soil and climate, the agriculture is necessarily limited, and is a very laborious occupation, while its mineral wealth is insignificant. Judging from all these circumstances, it would seem that it must ever be sparsely populated, and that poverty, with its attendants, vice and ignorance, must ever be the common lot of those few. But how different is the reality. We behold a denser population than in any other part of the New World; a country thickly dotted with flourishing villages and populous cities. And in place of poverty, we find vast wealth, both individual and concentrated; while a school-house on almost every hill, with high-schools and academies counted by thousands, and numerous colle-

ges and universities, from whose classic founts have gone forth some of the greatest master spirits of the age, most effectually refute the charge of ignorance, for a better educated people are not to be found on earth. The inquiry naturally presents itself:

From what source is all this greatness derived? Whence is it that a spot so ill-favored by nature, so insignificant in appearance, should be capable of wielding such an influence, not only in the affairs of this great Republic, but also of the entire world? I would answer, that, under God, it is owing to the people who inhabit it; who by their enterprise and indomitable perseverance, have finally surmounted many of the almost impassable obstacles which surround them, and have made New England what it is, one of the most interesting and important places on earth. I will endeavor at some future time to state the comparative influence which the various classes in society have exerted their various duties, and particularly the duties of New England farmers.

*Belchertown, Mass.*

E. NORCROSS.

*For the New England Farmer.*

#### RELICS OF OLD FIGHTING TIMES.

MR. EDITOR:—Much interest has been occasioned by the discovery not long since, in this town, of certain remains supposed to be those of some of the unfortunate men who composed the celebrated and ill-fated "Rogers's Expedition."

This expedition, after the destruction of the Indian village which was the object in view, seems to have divided into three parties, all of which perished, with the exception of three men only, who escaped half-dead with hunger and fatigue to tell the mournful tale.

One party passed on the west side of Memphremagog Lake, another on the east side, while the third went farther to the east, and according to certain indications, over the very place where these relics were found. They consist of a gun barrel of an old style called a fusee, with a ball about half way down, the lock of which was broken as if in a hand to hand fight; two or three clasp knives, which were open; several bullets of



two sizes; a number of silver or silver plated buckles; a drinking cup, powder horn, two or three coins, two Indian stone pipes, and quite a number of beads. There were also bones which on handling, fulfilled the prediction, crumbling into dust.

Twenty-five years ago, two guns were found about half a mile south of where these were found, leaning against a tree. Still farther south a few miles, in Holland, Vt., a man found a gun, and afterwards happening to dig a post hole on the same spot, found seven or eight dollars worth of Indian ornaments of gold, and three or four sun-glasses, which he sold on Stanstead Plain.

It seems as if this party had been pursued as far as the spot where the relics were found, that a battle took place there in which some white men fell, and the Indians were entirely destroyed, or so badly defeated that they did not attempt to follow any farther. They must have been destroyed, for the pipes and beads tell of unburied Indians. None of their friends ever found them, or they would certainly have been buried. The guns found in two places farther south, tell of a retreating company passing southward. No longer pursued, and unable to bear them farther, they left them to be found a hundred years after, and indicate their bloody path.

The place was a wet spot near a small river. It was a little piece of new ground being got in, and fire running over it uncovered the remains which had been covered with leaves; the reason they had not been discovered before, as the country is well settled. No ramrod was found, though most of the other parts of the gun were.

*Stanstead, C. E., June, 1860. J. G. FIELD.*

*For the New England Farmer.*

#### PRUNING TREES.

MR. BROWN:—What a beautiful season we are enjoying. I go into the house each pleasant evening, only when it is too dark to see anything more abroad! There is a great promise of apples. I never saw a fuller blossom; and enough are sticking on, and swelling up rapidly day by day.

I am spending a good deal of time with a saw and mallet and broad chisel, trimming. The summer is the time for this work. I see every year that some don't believe it; think it better to slap into the trees at their leisure in March and April. The practice is a wrong one, I have proved it. Wounds of any size made in those months will bleed, and not soon heal.

Those who expect large, fine apples must take a hint from Mr. Bull's method of raising such magnificent bunches of grapes. His vines are headed back, pruned, pinched, till the whole force of well-supplied roots is driven into a few mouth-watering clusters. Nature in trees provides against casualties. There is an excess of limbs. Some may be destroyed and the tree remain more comely and productive.

I have always been a strong advocate for trees. They are to the landscape what the hair is to the head—an ornament and a defence; and if fruit trees well tended, particularly, a source of profit as well as pleasure.

It is well to consider. On your farm there lies buried, below the reach of the plowshare, much

richness that can only be of service to you when penetrated to by the absorbing rootlets of thrifty trees. By the aid of the tree, this otherwise lost matter is changed into food for your family, or load for the market-wagon.

But if trees work downward with benefit to their owner, they work upward with no less. This mass of leaves which has so rapidly spread over every tree, is but a great straining apparatus; purifying the air by breathing it over, but absorbing from it floating atoms which they transform into wood and fruit—silver and gold. W. D. B.

*Concord, Mass., June, 1860.*

#### USES AND VALUE OF MUCK.—III.

##### HOW MUCK MAY BE BEST OBTAINED.

The circumstances under which muck beds are placed are so various, that only a few general rules can be suggested, which would prove useful. Many of them cannot be approached with teams, unless when the ground is frozen, and then the springs and swamps being usually filled with water, the excavation of the muck becomes an operation of extreme difficulty. Beds thus situated often present so many obstacles to their removal, that where the farmer is in possession of the most ample supplies, he foregoes their advantages rather than encounter such difficulties, and consequently expenses, to procure it. The only way in which we have been able to obtain it from such localities is, to take advantage of a severe summer drouth, and throw up large quantities in compact, high piles, and leave it to be hauled away by sled or cart, when the surface is sufficiently frozen to support a team. If near the high land, and the muck is of good quality, it will justify the expense of wheeling it out upon planks laid for the purpose. The valley muck, heretofore spoken of, may usually be removed at once by teams, but if thrown up and allowed a sufficient time to drain and dry, the expense of carting will be considerably reduced.

##### SOME OF THE MODES IN WHICH MUCK MAY BE PREPARED FOR USE.

The most common way in which muck is used, and the most practical and profitable, is to collect and store it in a dry state in some place convenient to the droppings of the stalls, and each day spread upon them twice as much as the droppings themselves. The late Elias Phinney, of Lexington, Massachusetts, who introduced this practice on a large scale, and whose ample deposits near his barns we have often seen, assured us that he estimated three cords of manure composted in this manner at a higher value, than three cords of the droppings alone. Perhaps no other man in the county has given this subject so much attention. He displaced acres together by cutting deep ditches and taking their muck away, then nearly filling them with stones which obstructed

his operations on the high lands, and covering them with the nearest muck, and so continued until the whole was accomplished. These grounds were then enriched with the compost of which they had furnished the principal part, and two to three tons per acre of excellent Timothy and red-top hay was their product for some ten to fifteen years in succession. His operations in this matter were extensive, conducted in a systematic manner, and the conclusions to which he arrived in relation to them, have been abundantly sustained by other manipulators, and by careful analysis by scientific men. His experiments, descriptions and statement, have conferred benefits upon the agricultural industry of the country, which are already appreciated by thousands, and will continue to be by thousands more, as they gradually apply the rich treasures of inexhaustible muck beds to their lean and famished fields.

As it is in this particular form that the farmer is to find his chief advantages in using this great gift of nature, we will briefly present the practices and results of some of the systematic and money-making cultivators, whose operations we have long observed, and who stand as worthy examples for all. Next to the patient, long-continued and valuable efforts of Mr. PHINNEY, of Lexington, no man has done more in this branch of industry for the public welfare than the Hon. FREDERICK HOLBROOK, of Brattleboro', Vt. The *Plow* and the *Muck-bed* have been the themes of his thoughts and conversation, until he has given to one forms of beauty and utility that strike the beholder with admiration, and has manifested to thousands that in the other lie concealed the future harvests that are to give our people a prosperity heretofore unexampled in the nations of the earth. That out of these dark and neglected masses shall spring, indirectly, plants and fruits heretofore unknown, cattle of symmetrical forms, and horses competing with the wind; that broad fields shall be restored to more than their pristine vigor, and fair hamlets and villages shall cover the land, and the homes of the farmer be made vocal with thanksgiving and joy, through the blessings of a material heretofore "trodden under foot, and despised of men." His practice and his precepts have gone hand in hand together, and their results have been so open and obvious, that the cavils of critics have been hushed, and the fears of the doubting dispelled. His fields and his garners and his stalls have all been the witnesses of his success, until prejudices have been overcome, and those within his influence have gladly adopted his plans. But the circle is comparatively small, and the aid of newspapers and farmers' clubs must be invoked to scatter the good tidings throughout the land.

Several articles from the pen of Mr. H. have

been published in these columns, relating his every-day practice, especially upon muck and barn manure, muck and ashes, and muck and lime composts. In relation to the first of these, he says:

"The floor of my stables is just long enough for the cattle to stand or lie down upon comfortably, and no more. Five feet and three or four inches, from the mangers or standards to which the cattle are tied back, is a suitable length of floor for cows, or for young cattle generally; for larger animals the floor should be proportionately longer. Immediately back of this floor, I have a water-tight plank trench, four inches deep, and twenty inches wide. Between the trench or the outside or boarding of the barn, there is a walk or passage-way two feet in width. This trench is the place of all places for manufacturing compost manures. Some winters, muck is put into the trench, and others, leaves and vegetable mould collected in the woods. Last winter, muck was used. It was dug in August previously, and piled on dry ground near the swamp to drain and lighten; a part of the heap was carted to the barn as soon as the cattle were to be stalled in the fall, and the remainder was hauled by the first sledding and piled near the stable door or under a shed open on the south side. In the coldest weather of winter, the frost penetrated the pile pretty deeply; but the muck was easily cut up with a sharp pick-axe, and it thawed very soon after being deposited in the trench. I could have readily put the muck in a place mostly free from frost, but preferred to have it frozen; for that operated mechanically to break down the lumps, to divide, pulverize and improve it.

A bushel basket full was put behind each animal, every morning. The droppings of the day and night fell into the trench, upon the muck, the liquid droppings completely saturating it, and the contents of the trench, thus mingled, were thrown out in the morning. In the very coldest days of winter, a thin sprinkling of straw or other litter was placed over the bottom of the trench, before putting in the muck, which prevented the latter from freezing to the trench. There were but few days, however, cold enough to make this precaution necessary. The cattle always had a bedding of straw or other coarse litter, which was daily thrown out with the contents of the trench, and served to swell the manure heap, to keep it up light, and to promote fermentation. The compost was nicely and minutely mingled every day by this mode, and no shovelling ever afterwards was necessary. The droppings falling upon the muck fresh and warm from the animals, and coming in contact with every portion of it, produced an immediate action on it, so that a much larger quantity of muck was well prepared for use in the spring, than could have been properly prepared with the same stock, and by ordinary modes of composting.

"It has been a custom with me, for many years, to collect from ten to twenty cords of this material, composting it variously with the excrements of animals, and applying it for the improvement of tillage fields: and I have not yet seen cause to abandon the custom. True, it would not be advisable to remove this mould indiscriminately from the forests; but if taken from the hollows and places where it gathers in extra quantities, it soon accumulates again sufficiently for the wants of the trees, and if it be taken only from these places, leaving the knolls and plains undisturbed, the injury, if any, to the forests, will be more than balanced to the owner by the benefits imparted to his tillage fields and crops.

\* \* \* If you winter fifteen to twenty head of cat-

tle, you can re-arrange your stable floor, and construct a trench in it at an expense of about twenty dollars; and this will answer the purpose for years."

This mode of preparation requires no uncommon skill, and commends itself to the practice of all, because any common laborer of the farm may accomplish it; and it needs no adjuncts from chemistry or what are called the "specific" manures. When this course is steadily persevered in, there will be little or no drainage from the heaps, and very little evaporation; and although the heaps may compose the droppings of twenty or thirty head of cattle, there will be scarcely any odor from them perceptible to the nicest sense. Such heaps must retain nearly all the fertilizing qualities that the droppings ever possessed, whether of ammonia, or any thing else. After lying a few weeks in this condition, the whole mass is black, pasty and moist, and may be cut through with a shovel, as though it were a mass of fine moist loam, or a soft new made cheese. Another mode, and one which is claimed by some to possess advantages over all others, is, to deposit a plentiful supply of well-seasoned muck in some spot convenient to the leanto, and then to cover the entire floor where the cattle stand and lie, as well as the trench and floor behind them, with the dry muck to the depth of four or five inches. It is argued that this not only catches every thing that falls, but that it forms a softer and better bed for the cattle to lie upon, than straw or meadow hay, and that a bed of this kind is of essential service, especially to working oxen and cows that are kept tied up a considerable portion of the time. Once or twice a day, this bed is raked over, and all the wet or moist matter dropped through the scuttle into the cellar, or thrown out upon the heap, and the bed supplied with fresh muck and levelled as before. We have never adopted this mode from the want of a suitable place to deposit the dry muck, but are inclined to think favorably of such a plan.

#### BOOK KNOWLEDGE VERSUS PRACTICAL KNOWLEDGE.

The prejudice against knowledge derived from books, and the custom of opposing it to that which is learnt by practice, originated in those times when books were almost confined to theology and to logical and metaphysical substances; but at present there is scarcely any practical knowledge which is not to be found in books. The press is the means by which intelligent men now converse with each other, and persons of all classes and all pursuits convey each the contribution of his individual experience. It is therefore as absurd to hold book knowledge at present in contempt, as it would be for a man to avail himself only of his own eyes and ears, and to aim at nothing which could not be performed exclusively by his own hands. That experience which in exclusion of all other knowledge has been derived

from one man's life, is, in the present day, scarcely worthy of the name, at least for those who are to act in the wider and higher spheres of duty. An ignorant man in such a sphere, if too proud to take advice, will ruin himself by his own blunders, and if not too proud, by adopting the worst advice offered.—Coleridge.

#### KEEPING FISH IN TANKS AND AQUARIUMS.

For nearly thirty years I have studied the habits of fresh water fish in the rivers about London, and though I am a bad hand at writing, having spent more time at the water-side than at books, I know that I have learnt much that may be of use to those who are interested in the subject, but have not had the advantage of practical experience.

There are many gentlemen now keeping aquariums, and the questions I saw in "the *Field*," some time ago, have led me to contribute my mite of information as to the best way of keeping fish alive and healthy. A few days ago, I went to the Zoological Gardens to see the fish, and was disappointed at their unhealthy appearance. I could see where the fault was at once; the water was too deep, and ran in at the top, instead of at the bottom. Now, if the water were to run in at the bottom of the side of the tanks, it would cause a stream and keep it all on the move; but, as it is, it is quite still at the bottom, and the fish are without perceptible motion.

The trout in particular should have more stream, as it would cause more air to be circulated through the water; and it should be borne in mind that the bottom of the tanks, if water-tight, are also air-tight—very different to the bottom of a river. I saw they were trying to cause as much air as possible by means of water-weeds, which were giving forth their little globules as fast as possible; that is very well, but to keep the fish alive and strong, there must be more commotion through the whole.

I have never yet seen an aquarium on the right principle, as they all receive their supply of water at the top instead of at the bottom. How I found it out was as follows: I used to keep live baits for fishing, and had a tank eight feet long, and placed in a cool cellar, with a cistern above it. I have had many hundreds of roach, dace, gudgeon, bleak and minnows, with a favorite perch, and a lively little trout at one time. At first I kept the tank full of water, with a wire-work covering to prevent the fish jumping out; and in hot weather I would sometimes find more than a hundred dead a night.

This set me thinking as to what was to be done, and while I was at the Thames fishing one day, and watching the fish at the bottom, the water being clear, a thought came into my head that I would make a miniature river of my tank, and cause a stream to run through it; so, in the course of a few days, I made a hole at the end to let the water off, only four inches from the bottom, which, of course, left the water four inches deep in the tank. I inserted the supply-pipe at the bottom of the other end of the tank. I raised one end up by means of blocks underneath, so that it was deeper at one end than the other, turned

the water on, put the fish in, and watched the result.

They were frightened at first, and all went into the deepest part; but next day I peeped through a hole, and saw them struggling which should get nearest the supply, their backs out of water, for at the upper end, the water was not an inch deep. I seldom lost many after that.—ALFRED GOULD, in *London Field*.

*For the New England Farmer.*

#### SYSTEMATIC FARMING.

MR. EDITOR:—It is a sound principle in agriculture that a farmer should return to his fields as much fertilizing matter as he takes from them. As I have extracted something of a fertilizing and productive nature from your field of labor, I feel constrained to make a small effort to return something to the *New England Farmer's* soil, from which I received it.

System is necessary to any enterprise, which requires a process of labor. In no department of business are orderly arrangements more necessary than in agriculture. The seasons revolve in perfect order. Summer and winter, seed-time and harvest, are established by an unchangeable law, and each has its peculiar demands on the farmer. Winter calls on him, in his loud, grum voice, to prepare for spring. This cold season of the year has work of its own to be performed. The barn and the woodhouse call for special attention; and let their calls be attended to in their season. A systematic method of feeding stock is not a small item among the duties of the husbandman. When stock pass from grazing to feed on hay, they need that which is of good quality, for a short time. As a farmer has fodder of different qualities, it should be distributed at different times. Cattle and sheep like a variety of food, as well as human beings; and it is good economy to gratify their taste. It is profitable to the owners, and beneficial to the animals to have stated and regular times for feeding them, and to give them small portions at a time. In this way they will leave less food, and derive greater benefit. The winter season is the right time to provide and prepare implements for spring work. Another item in the catalogue of farm work for the winter season, is the reading of the *New England Farmer*. Here the farmer can gather a rich harvest for his mind; and pick up rich droppings for his fields, to be applied in the spring.

As soon as the ground ceases to be clammy, it is time to plow. It is best to sow as early as the soil can be well pulverized. The earlier spring grain is sown, the more secure it is from blight, and from insects. It may be asked by some, what causes rust on the stalk of English grain, and what connection it has with the blight of the turnip? To this I reply: When the stalk has come to its growth, and the kernel is in a milky state, a warm and damp state of the atmosphere makes the stalk tender, causes an increased rush of sap upwards, and the consequence is a rupture of the tubular vessels of the stalk; the sap leaks out, moulds and is rust. The nourishment that was going up to support and mature the kernel, leaked out by the way; the kernel received but a partial support, and of course, came out lean or blighted.

If grain comes to maturity early in the season, it will probably escape these sad effects.

If the ground was sufficiently manured for the corn crop the last year, there is no need of manuring the present year. The soil is rich enough for a profitable English crop, and for several grass crops.

The summer is the time to gather the first harvest. Care should be taken to select the right time to cut grass. Experience and observation are the best teachers on this subject. The two great objects in cutting grass at the right time are to make the hay most palatable, and most nutritious to animals which are fed on it. These two objects, I believe, do not conflict with each other. When grass is in full blossom, it will make hay, that will answer both purposes. If grass be cut *before* this time, it has not acquired all its nutriment, nor all its flavor. If it be cut *after* this time, the nutritious matter, in some degree, is converted into a woody substance, and into seed, and the two leading objects are much impaired. English grain should be cut as soon as the milk of the kernel is changed into flour, and the kernel will not shrivel by drying. Cut it *earlier* than this, and the grain has not acquired its maturity. Cut it *later* than this, and the flour has deteriorated. Cut grass or grain a week later than they ought to be cut, and that last week will be more exhaustive of the soil and manure, than any week during their whole growth. There is a great loss, and it should be avoided.

The latter part of August is the most favorable time to cut bushes for the purpose of killing them. At this time all the sap, for that season, (with a few exceptions,) has ascended into the stems and branches,—and this is the right time to cut them off, and prevent its return to the roots.

The autumn is the time to gather the latter harvest. There is some difference of opinion among farmers respecting the *manner* of harvesting the Indian corn crop. Some prefer the old way of cutting the stalks when the kernel is a little seared. Others prefer cutting up the corn and stalks at the same time, stooking them, and let time and weather produce their natural effect. Without using argument or philosophy on these two methods of harvesting, let any farmer who pleases, make the experiment on the subject, and satisfy himself, and give a reason, if he can.

Another important item in systematic farming is the early training of steers, and colts, and hogs. Animals are more easily disciplined when young, than when they have come to their full growth. Before maturity they can earn a part, or the whole of their living, and perform labor with greater ease. Farmers' boys should be put early to work. They should have good tools, and be taught how to use them. They should have good examples, and encouragement to labor. They should have a patch of ground to cultivate by their own management and for their own profit, and they will make farmers, and probably better ones, than their fathers.

H. M.

*Milford, N. H.*

REMARKS.—We hope the reader will give attention to what our correspondent says above about the time for cutting grass, and to several other points of importance in his communication.

**FROTH-HOPPERS, OR FROG-HOPPERS.**

It is curious and interesting to observe what different plans insects have to protect themselves and to propagate their kind. Some gather into groups and enclose themselves with a thin, delicate covering, yet one that seems to exclude rain and wind; others encase themselves in a tough, silky covering, in short, barrel themselves up as tight as a cooper could do it, and there wait for a new state of existence! The little fellow whom we are



talking about, the *Froth-Hopper*, has a way all his own, and quite likely would laugh at any one who should propose to build him a house better than he can build one for himself.

Have you noticed on the grass, this summer, or on twigs of the trees, an unusual quantity of a whitish, frothy substance, clinging to the twig or stem of the grass, and about an inch or more long? "Yes, and have often wondered what it could be." Well, this is the little froth-hopper's house, where he remains until he has completed certain transformations. And how do you suppose he builds it? It is said that after alighting upon the grass these insects perforate it "with their beaks and begin to imbibe the sap, and they take in such quantities of it that it oozes out of their bodies continually, in the form of little bubbles, which soon completely cover up the insects. We have several species of these froth-hoppers in Massachusetts, and the spittle with which they are sheltered from the sun and air, may be seen in abundance during the summer on the stems of alders and willows, and on the grass.

The head of this insect is broad, and extended forward in the form of a triangle, and the face slopes downward towards the breast, so that we do not see it unless by critical examination. They also possess a surprising agility. But this faculty does not result from an enlargement of the hindmost shanks, as in the grasshopper, but to the bristles and spines with which these parts are clothed and tipped. These spines serve to fix the hind legs securely to the surface, and when the insect suddenly unbends its legs, its body is then launched forward into the air, two or three hundred times the length of its own body! In the same proportion, "a man of ordinary stature should be able at once to vault through the air to the distance of a quarter of a mile!" The color of the species whose habitat is on the grass, is a pea green; those found upon trees are darker, nearly black. A little observation will enable one to recognize the insect.

**SALTING CREAM FOR BUTTER-MAKING.**—A writer in the *Homestead* reports a statement made

at the New Haven lectures, that by adding a tablespoonful of fine salt to a quart of cream, as the latter is skimmed from off the milk and placed in the cream-pots until enough accumulates for churning, the time required for churning is reduced to two or three minutes. In a trial made by the writer, he found this to be true, and his theory is, that the salt acts upon the thin coating of the globules of butter, and so dissolves it that a slight agitation breaks it, and the butter comes at once. The experiment can easily be tried by any butter-maker.

**EXTRACTS AND REPLIES.****KETCHUM'S MOWER—REVOLVING RAKE.**

I have used the Ketchum's mowing machine and the improved wooden spring revolving rake this week, and find that they work to perfection. Some of the old farmers will say they don't want to use them, for they prefer the old style of doing things; but they may, for all me. They may start for Boston and ride on old Dobbin, and I will take the iron horse and see which will get there first! If any farmer will give the Ketchum improved mower and the improved revolving rake a fair trial, and they are not satisfied that they work well, they may call at Robertson's Hotel and take dinner at my expense.

**SUPERPHOSPHATE OF LIME—MOWING MACHINES.**

From my experience and observation I think if farmers would use more superphosphate of lime, it would pay them well for their trouble and good interest for the money laid out on it, if it were for nothing but to keep the worms away, which I am sure it will. I have used it in various ways, and always find it doing well. This year I have used some of Coe's. I mixed it with equal parts of ground bone and ashes, and put it on the hill at the rate of 300 lbs. to the acre, and now the result is, that there is not one-hill missing in four acres of corn, when on another piece joining, with not even a fence between, at least one-fourth of four acres is ruined by the cut and wire worms. The difference between the cultivation is, that my neighbor plowed his once, and I plowed mine three times; it was broken up this spring. I broke up with the double universal plow, and then plowed it twice. I have tried it in the garden and the result is as good as on the field. I put it on some cabbages and left one row without any. The worms would cut off those without it every night until I put on the lime. I am satisfied that if any farmer begins to use it he will not willingly do without it.

Charlestown, N. H., July, 1860.

J. F. G.

**BONE MEAL FOR COWS.**

My father has two cows that are disposed to chew sticks and bones when they can get them. Will bone meal cure them? If so, please inform me where I can obtain it pure, and what quantity should be given at a time.

W. I. SIMONDS.

Roxbury, Vt., June 27.

**REMARKS.**—You can procure bone meal at Nourse & Co.'s, 34 Merchants' Row, Boston. Give each cow a gill, and if she eats it, a gill more two days afterwards. If she does not eat it, mix the same quantity with corn meal and feed it in that way. If you should sow five to ten pounds per acre upon your pasture it would have an excellent effect.

**HOW TO MAKE CORN BEER.**

Some time ago I noticed an inquiry in the *Farmer*, "How to make good corn beer?"

To two gallons of water, add one quart of dry corn, one pint molasses, one tablespoonful ginger. Let it stand in a cask or demijohn, and in one week it is fit for use. The same corn will answer for several brewings, but the cask should be scalded each time.

Roxbury, Vt., July, 1860.

W. H. WALBRIDGE.

## SETTING STRAWBERRIES.

Can you inform me what season is the best for setting out a strawberry bed? What is the best form for the bed? What kinds are best to raise for market, and at what price can the plants be procured? H. C. C.  
*Southboro', June 30, 1860.*

REMARKS.—August is a good time to set strawberries, and so is April. Set the plants in rows two and a half or three feet apart, and the rows one foot from each other. Then put a row of beets in the centre between the rows and cultivate well. If the land is good and the plants are well tended, they will give great crops for one or two years, when the runners that take root in the centre of the rows may be preserved and the old roots dug up. In this way the bed may be made perpetual and very prolific.

Several kinds are now brought to market, and among them Hovey's Seedling, Early Virginia, Cutter's Seedling, Jenny Lind, Brighton Pine, Wilson's Albany, McAvoy's Superior, &c. The price of these varies from \$1.00 to \$1.50 per hundred plants.

## A WHITE GRAPE.

In the November number, 1859, Mr. Gregory, of Marblehead, Mass., wishes to see a native white grape. In reply, I would say, that the article has grown by a little brook in my pasture for twenty years past, though not every year. Should the vine bear this year I will endeavor to send him a sample, hoping they will not destroy their good name by blushing before his scrutinizing vision.  
 D. F. TUCKER.

*West Northwood, N. H., June 21, 1860.*

## CORN AND BUCKWHEAT.

In the *Farmer* of June 23d, "I. S." of Mansfield, inquires if he can raise corn after buckwheat. I raised buckwheat two years in succession on a light piece of land; the next year, (last year,) I put on a light spreading of manure, plowed it in, and there was raised as good a crop of corn on it as was raised in the neighborhood.

## CURE FOR THRUSH IN HORSES' FEET.

Clean all the dirt or filth out around the frog, jam in fine salt, and then wet it with beef brine two or three times a day, and a cure will soon be effected.  
*Methuen, Mass., June, 1860.* D. W. N.

## A LIST OF FLOWERS FOR A NORTHERN CLIMATE.

Will not some of your correspondents who are well acquainted with the cultivation of flowers give me a list of flowers which are hardy, and will stand a Vermont winter out of doors, say thirty to forty varieties of biennials or perennials? Will your North Hartland correspondent give the information desired, and much oblige a farmer's daughter?  
 MARY.

*Rutland, Vt., 1860.*

## A SICK COW.

I have a cow which usually has given about ten quarts of milk at a milking. This year she calved the first of April, her udder being, as formerly when calving, much swollen. I took the calf from her when one week old. She has almost entirely lost the use of two of her teats. She gives about a gill on an average from each. Will you give the cause and remedy?  
 BUCK EYE.

REMARKS.—We cannot. Got cold, perhaps. Two or three doses of aconite might cure her.

## HOLDFAST.

I have a valuable steer that has a swelling on his under jaw, called a holdfast in this section. You may have some other name for it. It is a hard substance. Will you, or some of your subscribers, inform me what will cure it?  
 N. MATTHEWS.

*Hemiker, N. H., June 10, 1860.*

## TO STOP BORERS.

To stop borers in fruit trees, I dig about old ones, and put on the tree, near the roots, a wash of thin coal tar, or gas-house tar. Put it on with a brush. I think it will not hurt the tree; it has not mine, and the insect will not trouble any such trees.  
 G. L. HITCHCOCK.

*Ashley, June, 1860.*

*For the New England Farmer.*

## CAUSE OF THE POTATO ROT.

MR. EDITOR:—I must be permitted to express my profound surprise at the reply of Mr. Lyman Reed to the call I made upon him to answer the seven reasons I had offered to show that insects were not the cause of the potato rot. He says, "I answered Mr. Goldsbury through your columns, May 12th, at his own request. His seven reasons of March 3d, I refuted by actually showing, attested by reliable certificates," (of seventeen members of Congress who spent one whole day in examining into the subject,) "that insects cause the potato blight and rot." Again, "I have frankly given him the authorities," (the seventeen members of Congress,) "which establish beyond question the true cause of this malady." And again, "I gave Mr. Goldsbury no logical answer, because I produced ocular facts—facts attested to by the highest authority in the nation."

Now, according to Mr. Reed's own showing, my seven reasons remain untouched and unanswered; he has given them no logical answer: he has made no attempt to show that they are unreasonable or untrue in point of fact; he has simply offered a certificate from seventeen members of Congress, who have jumped at a certain conclusion, because on a certain day at Washington, Mr. Lyman Reed, by the aid of a microscope, exhibited to their view certain insects on certain potatoes which he had kept for that purpose. Now, all this may be admitted to be true, and still the potato rot may not be caused by insects, because the insects may be the consequent or concomitant of the rot, and not the cause of it. The point to be proved is not that insects are found upon rotten potatoes, but that they are the cause of the rot. If Mr. Reed, who talks so much about ocular demonstration and well attested facts, would direct his attention to this point,—if, instead of making so many assertions, and attempting to bolster himself up, on the certificates of others, he would condescend to attack my seven reasons, each and all of them, and endeavor to show by the force of reason that they are unreasonable, he would be sure to secure my respect, and stand some chance of making converts to his cause.  
 JOHN GOLDSBURY.

*Warwick, June 25, 1860.*

PRESERVING INDIAN CORN.—The Prairie farmers of the West preserve their Indian corn in the ear, without the loss of a single grain from heat and moisture, by piling it up in common fence-rail cribs about 11 feet square and 9 feet high, the mass being rounded off at the top and exposed to the weather. Covered cribs are found to be ruinous to the grain, as experience has amply proved. So what would seem to be a shiftless style of husbandry, is the result of skilful experiment.

## A TRIP AMONG THE FARMERS.

Dracut, Mass., June 29, 1860.



MOVING along at an easy pace with my one-horse power, I reached this place at about eleven o'clock; the morning had been sultry and hot, followed by a copious rain, and before night set in there was a splendid display of fireworks and artillery. What a pity it did not happen on the 4th of July! What a world of powder and crackers it might have saved! Glad to reach shelter from the pelting rain, and still more to become acquainted with the family of an old friend, we (for I had a woman with me) turned aside at the inviting homestead of Mr. ASA CLEMENT.

The rain was very considerate, for after loading the foliage, flooding the roads and drenching everything else, it ceased, and Mr. Clement and myself went forth to see what the month of June had to show. And a splendid show it proved—all beyond the power of my pen, aye, beyond the power of any pen to describe. What fullness everywhere—in the field and forest, in the orchard and garden! What a prodigality of foliage and coloring, and what lavish promises of future harvests! If nature permits all this gorgeous scenery to fade and decay, can she ever produce its like again? It seems impossible! Look at those trees, only a few days ago leafless and bare; now how their foliage shines—how dense and grateful is their shade in the fervid noon! And the fields, how crowded with nutritious grasses and fragrant blossoms,—the air is redolent with their perfumes. But Nature is not content with this wonderful display for the sense of smell and sight, so she regales the ear with the voices of singing birds and running waters! How few contemplate this world of beauty and mystery aright, in thankfulness and love. How many look upon it all as a matter of course, as nothing but rocks, and grass, and trees, after all, instead of so many infinite expressions of wisdom and love.

These were my first feelings, and the present condition and probable progress of agriculture next occupied my mind.

Mr. Clement entered upon his farm with slender pecuniary means, and whatever he has done to make the desert blossom, to secure a reputation as a skilful horticulturist and good farmer, or to gain a pecuniary competence and a substantial and permanent home, has been done by ag-

ricultural pursuits alone. Among the present objects of his care are some thousands of young apple trees, for which he finds a demand pretty much all over Middlesex county. His trees are healthy, and so formed in the nursery as to need little shaping after being transplanted. This is a point of considerable importance to the purchaser, and more especially to those who are not particularly acquainted with the management of young trees. His grounds are also stocked with standard apple and pear trees, with peaches, a variety of grapes, and smaller fruits. Ascending the hill to his nurseries, I passed an extensive peach orchard, but without a peach to be seen, and the trees, though not old, had the appearance of age and decay. On passing higher up I found another orchard of peach, intermingled with apple trees, every tree of which seemed to be loaded with fruit—a sight my eyes have not been blessed with before, this season. The cause of this fruitfulness is probably *altitude* and *shelter*, as the trees are not only on a high piece of land, but are sheltered by the apple trees mingled with them, and on the north and northwest by a belt of forest trees four deep, and occupying a space of about twenty-five feet in width. Outside of this belt, and entirely exposed to the northwest wind, is a row of peach trees full of fruit, which are undoubtedly protected by the belt, though on the south side of them. The force of the wind is obstructed by the belt, and the sun's rays tempered so that the atmospheric changes in the neighborhood of the peach trees are not so sudden nor in such extremes as they would be without it. In connection with the lighter and warmer air than is found in the valleys, these trees have the effect of so modifying and ameliorating the climate that the peach tree remains fruitful.

This instance affords a fine example of the benefits to be derived from shelter. Indeed, success can scarcely be expected without it, in the cultivation of peaches, pears, and most of the small fruits; and our common garden crops, such as beans, peas, squashes, &c., do much better where they are protected from violent winds.

Mr. Clement has made an experiment with apple trees that I have not seen elsewhere, and which promises good results. In a pasture where his cows run he found many thrifty young apple trees which he transplanted into rows at quite wide distances apart, and then grafted them so high as to be beyond the reach of the cattle, aided a little by the brush which was cut up and thrown around the stem of the tree. The brush not only kept the cattle from rubbing against or browsing the tree, but served as a mulch to keep the soil moist about them. These trees were set seven or eight years ago, and many of them are now in



bearing, with fine stems and heads, and their limbs starting out so high as to be beyond the reach of the cows. Being set at wide distances and with their limbs so high, they do not materially, if at all, injure the pasturage. In a dry season, I am not certain but they may prove of actual benefit to the pasture, as they will act as condensers, and thus cool, moisten and modify the temperature over it. I was much pleased with the experiment and its results, and hope to see it repeated in other localities. In the autumn it becomes necessary to clear the brush and dig the grass away from the tree, as it affords a fine shelter for mice, who find it agreeable to feed upon the tender bark, and thus destroy the tree.

I wish some of the gentlemen who read, and even write for your paper, would visit Mr. C., and while passing over his thrifty acres learn something also of his practical operations upon them. They will find no mystery in anything he has done. It has been plain, common-sense Head Work, with moderate, persistent, Hand Work, skill and labor combined, and each year producing a considerable surplus not wanted for the immediate purposes of the family. This increase has not been secured, either, by parsimonious habits in the family circle, for the Home, and all its surroundings, give evidence not only of thrift and competence, but of highly-cultivated taste. A family of children has been reared, or are growing up, and educated in those elements necessary to the pursuit of agriculture or any other common business of life, and in some branches which are considered as accomplishments rather than essentials. I have rarely heard a better toned instrument or seen a more skilful pianist than I found in one of Farmer Clement's daughters. The fine passages of some of the best composers were as familiar to her as the cups and saucers of the tea-table. And this is as it should be. There is no reason why the farmer who can afford it—and there are thousands who can—should not have his pictures, piano and carriage, as well as the thriftiest merchant that ever sold cottons or candles, or anything else. I do not mention these things because I found them here to-day, for they are quite common now among farmers all over New England, but to wrest the occupation as far as I can from that slough of doubt and disrepute into which some well-meaning but mistaken persons have contributed to place it.

Passing the line of our good State into New Hampshire, I called upon our old friend and correspondent of the *Farmer*, B. F. CUTTER. In a former letter, two years since, I spoke of Mr. C.'s family and farm at some length. My present object was to pay him my respects, and look at his *Seedling Strawberries* on their native beds. One

of you had recently seen them in the grounds of Mr. MANNING, at Reading, and tested them at his table, and if I mistake not, lingered at the feast as though "they were not bad to take."

Last year Mr. Cutter placed some of his seedlings in a meadow by opening a hole and inserting the roots into it in the midst of the thick grass roots, for the purpose of testing their hardiness. The crop of grass on the ground to-day would make two tons of hay to the acre, and the strawberries—well, perhaps, *not quite so much*, but if a whole acre were covered as we saw some particular spots, the crop would be enormous. The stems were loaded with ripe and unripe fruit standing six inches from the ground, kept up clean and bright by the grass. Why is not this a capital suggestion? This is the habit of the strawberry, as the finest I ever tasted grew on burnt land newly laid to grass. They were not so large as some of the cultivated ones, but were altogether superior in flavor. Gathering the fruit in this position would tread down the grass somewhat, to be sure, but that loss might be incurred in a small way. The *Cutter Seedlings* have two or three excellent qualities, perhaps more. They are very prolific, grow large and up from the ground, and continue in fruit from thirty to forty days. When I saw them on the grounds of Mr. Manning, in Reading, I understood him to say that they were more productive than any other variety in his extensive list, with the exception of the Wilson's Albany. No person of observation can visit Mr. Cutter and his farm without deriving benefit from it: it is the place to get ideas.

When the big clouds had passed over our heads, and the thunder seemed to be cracking away over yours, we made another stage in our journey, but had scarcely gone ten miles when we were driven by stress of weather under the hospitable roof of Mr. W. W. COOK, in the ancient town of Derry. The surface of the earth where level was soon flooded by the drenching shower. But thanks to the disturbed elements—for they were the indirect means of introducing us to several pleasant acquaintances on the way. Mr. Cook entered upon the old Gen. Derby place about one year since, intending to make it a stock farm, and has already made his mark there. He has erected one of the finest barns we have seen, and such other outbuildings as are necessary on a large farm. The land is admirably adapted to his purpose, and if he does not attempt to do too much in too short a time he will succeed. He has the capital, and the field for enterprise before him; it only remains for him to *know how*, to make the farm productive, and at a handsome profit. If he takes it for granted that any body, of any profession, can at once become a good farmer, that idea will quite likely prove delusive, and may be an expen-

sive one. "Slow and sure," should be the motto of the young farmer, or of the beginner.

If these sage suggestions do not compensate Mr. Cook for the shelter afforded us, the kind invitation to tea, the hearty reception we received from his mother, (his wife being absent,) and the pleasant chat with his children, the next time we pass that way we will cancel the bill with the hard, unfeeling cash.

It was gratifying to me to find a man in the prime of life, with means at command, entering upon a large and neglected farm with well-defined views as to what he means to accomplish, and with a determination to make it pay a fair interest upon the capital invested. I wish him all success in his new enterprise, and using the license conceded to an older man, ask him to remember the injunction to "*Be slow and sure.*"

But, bless me, what a long letter. Who will read it? Well, friend, take a saucer of strawberries and cream as you read, and it will not seem too long.

Truly yours,

SIMON BROWN.

Messrs. NOURSE, EATON & TOLMAN.

#### THE WOOL SEASON OF 1860.

The past ten days have formed an important period in the commercial history of our State for the current year. In that short space of time upwards of one million dollars eastern capital has been actually paid out to our farmers for their wool clip—an amount of wealth calculated, in the present impoverished state of our money market, to work an untold influence for our commercial prosperity. The clip has been a heavy one, and it has brought fair prices. The season is considered to be about three-fourths over. It has been characterized, so far as this State is concerned, by more determined competition than has ever before been known. As was announced in our commercial columns at the commencement, prices were expected to have ruled five cents below last year's rates. This expectation was based upon the difficulty of selling old wool this spring at a reasonable advance on its cost last season, together with the unbettered prospects of the market for manufactured goods.

The feeling was general that the best wools should be taken at a price not to exceed forty cents. As the season fairly opened, a larger number than usual of heavy manufacturers and dealers entered the market. Those who had hitherto purchased in this field conceived that there was an attempt to drive them out, and they exerted themselves to the utmost to maintain possession of the territory, where year after year they had obtained their supplies. Wool-growers having found, by the experience of the two past seasons, that by holding back they could command their own prices, adopted this course. Thus the market opened slowly. There were rumors of the ability of purchasers to pay last year's rates, but as yet they remained firm in their determination to buy for less.

In a small way competition had already com-

menced, and as high as forty-six cents had been paid at a few places, when on Monday, the 18th inst., the ball fairly opened by a certain heavy manufacturing company giving their agents *carie blanche* to purchase at current prices, whatever they might be. Others, of course, had to do the same, and a general advance was the result. Forty-five and forty-six cents now became the common offering prices, with forty-seven and forty-eight cents, and in some of the principal battle-fields of competition, even fifty cents was not unfrequently paid for choice lots. Thus the market opened, and at these rates the bulk of the clip of 1860 has been sold. The same prices still prevail, but the trade has assumed a quieter phase, which will continue with little variation till another clip comes in.—*Detroit Advertiser, June 27th.*

#### OUR FARMERS.

Their homes are their castles—their hearthstone a throne—  
They rule with no sceptre the kingdoms they own;  
The stalks, and the vines, and the fruit-bearing trees,  
Are subjects that bend not to tyrants the knee;

But bend with the weight of the orchard and field,  
Ever loyal and faithful, a harvest to yield;  
No planning and plotting among them is known—  
No traitor the sovereign would strike from his throne.

He stands 'midst his acres of grass, wheat and maise,  
Like Crusoe, "the monarch of all he surveys."  
His banks are the earth banks that stand on his farm—  
The banks that are safe when the panics alarm;

The stock is the cattle—not fancy in breed;  
The shares are the plow-shares that score for the seed—  
Not quoted on 'Change in the broker's array;  
But shares on which Nature will dividends pay.

Their banks are not those that the widows condemn—  
No officers pilfer deposits from them—  
If small the potatoes that in them are found,  
Yet none are as small as we find out of ground.

The farmer with appetite ever can eat  
The bread on his table, "as good as the wheat;"  
And, loving most dearly his wife, he may utter,  
"My bread and my wife! I'll not have any but her!"

With juice of the apple, the wife then may fill  
The glass in which lingers no tremors or ill;  
And she may respond that, whatever betide her,  
Most happy she'll be with her husband beside her!

There's many a hearth where the embers are glowing,  
There's many a heart with its joys overflowing;  
The hearths and the hearts from the world's rude alarms  
Are safe in the homes that are reared on our farms.

THE SPIDER'S THREAD.—That a creature could be found to fabricate a net, not less ingenious than that of the fisherman, for the capture of its prey; that it should fix it in the right place, and then patiently await the result, is a proceeding so strange that, if we did not see it done daily before our eyes by the common house-spider and garden-spider, it would seem wonderful. But how much is our wonder increased when we think of the complex fabric of each thread, and then of the mathematical precision and rapidity with which, in certain cases, the net itself is constructed; and to add to all this, as an example of the wonders which the most common things exhibit when carefully examined, the net of the garden-spider consists of two distinct kinds of silk. The threads

forming the concentric circles are composed of a silk much more elastic than that of the rays, and are studded over with minute globules of a viscid gum, sufficiently adhesive to retain any unwary fly which comes in contact with it. A net of average dimensions is estimated by Mr. Blackwell to contain 87,360 of these, and a large net of 14 or 16 inches in diameter, 120,000; and yet such a net will be completed by one species—*Eperia apoclica*—in about forty minutes, on an average, if no interruption occurs.—*Introduction to Zoology*.

*For the New England Farmer.*

#### A TRIP INTO MISSOURI.

• We were tired of the quietude of Sumner, and angry at this dry weather, and at the hopelessness of our getting anything to eat this summer, so we have been into Missouri, to see if there could be any prospects of filling our empty stomachs, and if we should be sure of apples this fall, for we have a Yankee's voracity for apples.

Three years ago, this town was the home of a deep forest, but several "Massachusetts Yankees," with their speculative principles, and the obstinate, daring, clear-the-track spirit of a Yankee, selected this spot as the starting point for "the greatest city in Kansas or Missouri." At the close of a year, we had nearly 200 houses up, including a large brick hotel, several smaller ones, stores, steam-mills, &c. We numbered about 1200 inhabitants, including 400 voters. We kept school, and performed our own housework in a little, unlathed and unplastered house, or rather room of 16 by 24, for the use of which we paid \$10 per month rent. It was surrounded by grand old forest trees, down by the river bank, where, all the pleasant summer nights, the Katy-dids kept up their everlasting information that katy-did-it, did it, did it. Did what? we would like to know. We liked the fun of teaching 16 year-old boys their a, b, abs, and older boys the multiplication table, and more especially, learning in a rough way to "do housework." We liked it, because we had none of the ceremony and ennui of the city to discourage us.

But Atchison, our rival town, finding that we were going ahead, began to fall into the hands of Free State men, the fighting characters dispersed, and now Atchison is a fine town, rapidly growing, with railroad, telegraph, churches, schools, and is one of the chief starting points for Utah, the Gold Regions, Nebraska, &c. Sumner is taking a resting spell, after having worked so hard, and in a short time will "pick up its legs" again, and run ahead. But this is not going to Missouri. We crossed the river at Atchison; they have laid out an embryo city on the opposite side, called Winthrop. All along through the low, rich bottom for a mile, are planted the city stakes.

Coming out of this prespective town, we travelled for two miles over a dangerous, muddy road, through a dark, almost impenetrable forest of large trees. Many of the trees are six feet girth, running upward for a hundred feet, without meeting a single twig, or branch. After coming upon the bluff road, we travelled along very pleasantly by pretty farms, but yet very retired and wild. About six miles from the river, we came to Rushville, a town built among the bluffs, but which looks best

at a distance. It is fifteen years old, built in an unhealthy place, and has a wide creek running through its middle, breeding fever and ague.

Passing through Rushville, we travelled a good road for another six miles, and then entered Bloomington. What an old, tumble-down place it is. The stores are built in a square, and the dwelling-houses are scattered about, many of them looking like the "last shad." It is twenty years old, has some 1500 inhabitants, has an excellent site, and with the well-settled surrounding country, might make a flourishing town, if a little more energy could be manifested. The inhabitants are lazy Missourians, who prefer to lounge about, and drink whisky, of which the stores sell any quantity. Yet they have some respect for religion, for they have built two good churches, an ornament to the town.

After leaving Bloomington, we stopped at the farm of Mr. P—. They have a large, cultivated farm, a splendid orchard, and plenty of stock. Mr. and Mrs. P. are a very substantial couple, weighing together 500 pounds. They are great, over-grown persons, with heads as large as water-buckets. They have always lived on the frontiers, worked hard, lived on coarse food, and seem likely to live a hundred years. Their children are as proportionably healthy and fat.

Here we met an immense flock of blackbirds migrating North. Thousands upon thousands were there congregated, covering the trees and ground for a long distance. My mouth watered, as I remembered the old nursery rhyme,

"Four and twenty blackbirds baked in a pie."

We next stopped at the farm of Mr. D—, an old bachelor, where we were to remain over night. He owns 3,000 acres, cultivating only 500, with the assistance of his ten negroes. He owns but one woman, the mother of two children. She does the cooking, milks the cows, and raises chickens, &c. All his slaves have good, comfortable cabins, and healthy food. Each is allowed several acres to cultivate for himself, and from which they frequently clear \$200 a year, which they spend immediately. They raise broom-corn, and during the evenings, make brooms to sell for their own benefit. Many a Missouri negro might earn his freedom in a few years, but they think that they are too well off as they are. At sunset, they retire from work, and after that time are paid \$1.25 per hundred for cleaning hemp. They are allowed two suits of clothes a year, and one pair of boots, and one pair of shoes. Hearing a violin in their cabins, I expressed a desire to witness their dancing, and Mr. D. called them. Two ebony fellows came reluctantly in, and played excellently, while another jet fellow "heeled and toed the mark," to my intense amusement. One of the negroes earns \$75 per year by playing at parties. The negro woman has all she can make by raising chickens, ducks and geese. She is a saucy thing, and threatens to kill any woman that Mr. D. will marry. She "don't want any missus bossing her round." Mr. D. and his men raise large quantities of wheat, hemp, corn and stock every year. He has some of the finest horses that I have ever seen. He has a large number of buildings on his place, and is now building a large store-house to store away his hemp for a couple of years, when the price does not suit him. Yet how mis-

erably lonesome and dirty it was there. I would not remain for the whole farm, negroes, and all. Not a book or paper to be found on the place, and the slaves do very much as they please. Mr. D. showed me some potatoes so large, that while one end was roasting in the fire, I could sit on the other end, and not be incommoded by the fire. Have you any such potatoes in the East?

The next day was the Sabbath, and rainy. We were obliged to kill time during the day, by impatiently watching the clouds. Towards evening, we could go to the adjoining farm of Mr. W. We waded through the mud and rain, and soon were beside their cordial fireside. What a difference in the two firesides. The old bachelor's cold, dirty and cheerless; Mr. W.'s bright and cosy, and I rested better in my bed, for I knew that a negro's dirty form had not pressed it.

What a cheerful influence a good woman exerts over a household. Her hand and will places every thing in its proper position, and her happy influence draws the thoughts and love of man towards the central point of his existence—his home, and the humanizing ties found there. She it is who makes the fireside so bright and cheerful; she it is who makes home so beautiful and dear; she it is who exerts an influence upon the prosperity of the State, by the good, or bad men that go from beneath her influence, out into the world to form the future nation. Take her away, and how deserted and cheerless is home—is life. And yet men are very seldom willing to give to woman her just praise, seldom willing to own her influence, seldom willing to own that to her work they are indebted for their life's happiness. O, man, love and respect thy mother and wife, for without them, thy life is distasteful and weary; without them, life would scarce be worth the taking.

Mr. W. cultivates about 200 acres. He owns a very large orchard of thirty different varieties of apples. Last fall, he picked 3,000 bushels, for which he found a ready market at \$1 per bushel. They own seven negroes, who know their duty, and perform it faithfully. Mrs. W. was always amongst slaves, and knows how to treat them. Her household is well managed, and she superintends and parcels out the negroes' work. They set an excellent table, and everything is neat, not at all like the majority of the Missouri farmers, who live in dirt, and are always contented with corn-bread and bacon. She makes all the negroes' clothes, and they all look neat, and outwardly happy and contented.

The next morning we started for home, and at night stopped at the farm of Mr. Hoosier, a hoosier in character, as well as by name. Before we reached the house, we met an unfortunate horse, who had upon his back two women, each with an infant and four children scattered indiscriminately upon the horse. A parcel of dogs assailed us as we drove up to the cabin, but soon dispersed at the old woman's cry of "Clar out;" and answered to our request to stay all night, "Wa-all, I reckon." The woman brought out a basin of water, and we were obliged to use the earth as a wash-stand. After washing, we sat down to a supper of the universal corn-bread and bacon, cold cabbage and coffee. The table was spread upon a wide porch, and as the wind blew too violently for a light, it was placed in a window back of us, and we swallowed our food in rather a dubious state,

both mentally and optically. The mistress of the house was a great fat, bare-legged, bare-footed woman, weighing only 276 pounds, who slept like an elephant, and breathed like one. She said she was "too fat, and it was mighty unpleasant this powerful hot weather." She was troubled "right smart" with fever and ague, but it did not make her any poorer. They have lived on this place eighteen years, and yet it is about as wild as a Kansas claim. So are most all the river bottom farms. The occupants do not know how to do any thing, but cultivate hemp, wheat, corn and stock, drink whiskey and smoke, and are contented to live drudgingly and ignorantly. Mr. H. has some 300 hogs, cows, horses, and any quantity of hens and chickens. They are very ignorant, and nowhere could I find at least a paper. They supposed that Pike's Peak was on the river borders of Kansas, and would not go such "a heap of way for the gold." And yet they were only 25 miles from the vein. I noticed a clumsy wooden article upon the porch, and asked its use; they replied, surprised, "It's a loom, didn't you ever see nary one before? Why, where was you raised?" "In Boston, Mass." "Wa-all, I knowed ye wa'n't raised in this country, else I reckon you'd know'd what that air is. I suppose Boston is a heap of way from here, as far as Kentucky?" "O, yes, twice as far." "That's a heap of ways; did you come all the way in a wagon? La me, it seems as if Boston must be on the other side of the world, it is so far off." The old man insisted that I was wrong about the location of Boston. "It is on the other side of the ocean, ain't it?" And so throughout the whole evening, they astonished me by their ignorance. At night we slept, twelve, men, women and children, in one room, and I soon became conscious of other than human occupants in my bed. Before breakfast, the old man brought out the whiskey bottle, and filling a glass half full of the raw article, offered it to me, saying, it would "give me an appetite." I declined, but the rest, including the women, took a liberal share.

That day we travelled over a miserable road, and only made twenty miles; got lost in the woods towards night, and were compelled to remain the whole night in the wagon, exposed to a fine shower. The next morning we travelled three miles before we found a cabin, to get breakfast, and as we reached our own plain, but neat and cosy house that evening, we most heartily echoed the song,

"Be it ever so humble, there's no place like home."

Yes, how pleasant it is to have a home, be it ever so humble, if it is only surrounded by attractive influences to make it dear.

In Missouri, especially in Buchanan county, the people live in log-houses year after year, and accumulate land and stock. They think it useless to embellish their homes, and a "pi-anna" or well-stocked book-case is scarcely noticed, and certainly scornfully appreciated. Those who have not slaves, the "poor white folks," as the negroes scornfully call them, get up by daylight, go early to the field, work hard all day, and after a hearty supper of bacon and corn-bread, go to bed. When they are not working, they lounge in the whiskey shops, or perhaps get intoxicated. If we wish to reckon the worth or activity of a person, when we say "he is only a Missourian," we had

rather hunt farther for a shoot from some other State.

In Missouri, the crops look better than they do in Kansas, and we hope to get our supplies from there, if ours fail us. Now, we seem to have no money, no crops, no people, no prospects, no anything. But we expect better times, soon.

SUSIE VOGL.

Sumner, K. T., June 25, 1860.

*For the New England Farmer.*

#### CULTURE OF POTATOES AND THE ROT.

MESSRS. EDITORS:—Having had not less than sixty years' experience in growing potatoes, and having made extensive research and observation at home and abroad, I beg leave to lay before your readers my views upon the potato rot. The rot does not arise from one cause alone, but from several causes combined. The fault is in man himself, and there is no patent vermifuge that will prevent it.

The first fault is improper cultivation—the soil is robbed of something needful for the plant. The manner of cultivating and keeping, after ripe, is entirely different from what it was formerly. In olden times the soil was newer and more perfect. The plow was put in deeper than some do it now; the seed was pure; the hills were made three times as large; the seed planted on a soft bed and covered a good depth, protected from the atmosphere; they were dug right into a basket and carried to a dark cellar, or they were emptied directly into a pit dug for them and covered with boards or straw, and then earth put on so as to raise a heap that would shed the rain, and in the spring they were fresh and good, like new potatoes.

The cause of more than half the rot of potatoes is mud instead of insects. Forty-five years ago I planted a plot of ground by the side of a mill-stream with potatoes. The vines were fresh and green, the tubers about as large as hens' eggs, no insect near them—but there came an unusual flood and covered them for an hour, and in 24 hours afterwards there was not a sound tuber in the lot! The same thing happened with me once since, and it has always been so on Connecticut River in case of a heavy flood reaching the tubers. I have been into a field where the owner complained of rotten potatoes, and told him where the rotten ones were, and where the sound ones were, by the situation of the hills; he dug, and found as I said. No sooner do we have a great shower than the word is, I guess this will rot the potatoes. I guess so, too, but it don't rot mine. I plant them in soft, mellow soil, and so that surplus water will drain from the roots, cover them a good depth, and am careful to have good seed, if possible, seed not previously inclined to rot.

If a man has not wit enough to go in when it rains he will get wet, and if he exposes his potatoes too much to mud or to the air, he must suffer the consequence.

The potato is not like the turnip. It requires a dark, cool place. A man on Long Island had dug half his crop on a field of six acres, which were worth one dollar per bushel, and they were all sound—he dug the other half, and they were mostly rotten. The field, cultivating and seed

were all the same, and planted the same day; the cause to me is very plain: they were all brought out early in the morning and a part planted immediately; the rest stood in the open air and were planted in the latter part of the day, having the disease in them, which increased and spoiled their progeny.

Another man told me he dug his potatoes and carried one load into the cellar; the other load remained out all night in the moonshine and they most all rotted, while the first were sound! The lunar influence was light and air.

But what is the practice of those who have rotten potatoes? No care is used to have sound seed; the ground is plowed shallow, seed planted on the subsoil, with scarcely earth sufficiently to cover them, and then small hills. A shower comes, and the tubers become muddy, and a hot sun scalds them. When ripe they are hooked out and are one day in the hot sun, and then carried to a light cellar or to market.

PHINEAS PRATT.

Deep River, Ct., July, 1860.

TRIAL OF MOWING MACHINES.—The Providence *Journal*, in relation to the trial of mowing machines in Providence on the 26th, each machine being required to cut half an acre, states, that the "New England Mower cut its allotted portion in eighteen minutes, the Manny's in about twenty-one, Wood's in about twenty-three." On the trial of two horse mowers, Buckeys in twenty-one minutes, Ketchum twenty-three, Wood twenty-five, Manny twenty-seven.

REMARKS.—There are many things beside the mere time consumed to be considered in forming an opinion of the merits of a mowing machine. Indeed, whether a machine will cut an acre in thirty minutes, or in sixty, we consider of comparative little consequence. If it is capable of doing it in sixty minutes, cutting the grass evenly, at a proper distance from the ground, and with a moderately easy draft, it is enough for a one-horse machine. If with two horses, an acre and a half per hour where there is a ton of grass to the acre may often be accomplished.

Rapidity is not so valuable a quality, as *certainty*, and *ease*, so that one can continue in the operation for several continuous hours, if he desires to do so. With a good machine, requiring only a moderate draft, and having a five foot cutter bar, a pair of horses would cut an acre in forty minutes easily. The trouble has been that so much time is required for the horses to rest, and the frequent stops, perhaps just after they have rested, to clean out the clogged knives, or some other obstruction.

Forty years ago, a man at Newburyport placed one hundred dollars in an old stocking, where it remained till last week, when it was disposed of at an advance of four or five per cent. for old silver. If the same money had been placed in the Savings Bank, it would have increased to a thousand dollars.

### A MORNING WITH THE BEES.

At six o'clock on Friday morning last we had a call from Mr. R. S. TORREY, of Bangor, Me., a gentleman who has for many years given his undivided attention to the cultivation of bees, and whose success with them, both as a matter of pleasure and of *profit*, has been somewhat surprising. We witnessed some of the results of his skill at the State Fair in Maine last fall, which were quite as gratifying to us, as the liberal profits were to him. The subject was not new to us,—having devoted time and observation to it for several years, we felt competent to look the matter over, and judge whether Mr. Torrey's new hive had points of merit not common to other hives, and we soon arrived at the clear conclusion that it had. Among these points are the following:

1. The form and size of the hive are right, judging from an experience of twelve years with them.
2. The condition of the bees can be seen at any time, in front, in rear, and at the top of the hive.
3. The most scientific and perfect method of *ventilation*.

The merit contained in this particular point surpasses that of any other hive we have examined,—and it is of great importance to the bee-keeper, because a large proportion of all swarms that die in the winter, *die for the want of proper ventilation*. We have lost half a dozen swarms in a single winter from this cause, and have a friend who lost four times that number during the same period.

4. The peculiar arrangement of the platform upon which the hive stands.
5. Arrangement for feeding.
6. No frost or ice in the hive in the winter.

The proper ventilation prevents the frost or ice, and the mode of doing it is as simple and cheap as it is ingenious.

7. A trap which prevents the ravages of moths.
8. No filth or dead bees can accumulate between the combs in winter.

The above are the leading points of merit not common, we believe, to other hives, but it has others—perhaps all others—found in the best,—such as that

The surplus honey can be taken away without disturbing the bees.

Taking it away in boxes.

Changing the combs.

Fighting prevented.

Transferring the bees.

Swarming prevented, &c.

While the hive is exceedingly simple, everywhere, having no changes or subterranean pas-

sages to perplex, it is cheaply constructed, and we have not a doubt will prove efficient. It will be efficient, because its accommodations will correspond with the natural wants of the bee, and render the little worker those facilities which it finds in its normal condition in the forest. It is so simple that a child can understand its construction and the mode of using it, with five minutes' explanation.

We found Mr. Torrey a skilful and judicious manipulator, removing honey and transferring bees with accuracy and ease. So we passed the entire morning, robbing the bees here and there of a portion of their delicious hoard, carrying portions to a weaker family, and giving to others the means of working out some little device not to be found in *their* records of industry!

When our grand Bee-Hunt comes off with Mr. Torrey in the forests of Maine, the reader shall be put in possession of its incidents.

We shall be glad at some other time to state the processes through which he came to the conclusions to form such a hive as he presents to the public. They are new and ingenious, and will be interesting to all lovers of the bee and honey.

*For the New England Farmer.*

### COUNTY AND TOWN AGRICULTURAL SOCIETIES.

MR. EDITOR:—Which will best promote good farming, county or town societies? This is an important question, deserving the careful consideration of every farmer, and of all the friends of good farming. So far as my knowledge extends, it has never been publicly discussed in any of the newspapers or periodicals of the day. It is true, that *town societies* have occasionally been mentioned in terms of approbation by the gentlemanly editor of the *New England Farmer*, and perhaps by others, but never in a way to point them out as rivals, in usefulness and influence, to county societies. They have usually been addressed under the homely but modest name of "Farmers' Clubs," but never as taking rank with county societies. The question, therefore, is comparatively a new one. It has never been discussed, or, if it has, it has never been decided. At least, its true merits are not generally known. In order, therefore, to come at this question so as to satisfy ourselves of its merits, without exciting the jealousy and prejudice of county societies, with their vested rights and State funds, it will be best, perhaps, to institute a direct comparison between the different sides of the question; in other words, to throw the question into the great scale of even-handed justice, and see which side of the question preponderates, and which kicks the beam.

Of the *county societies* I need not attempt a particular description. Their character and objects are generally so well known, as to supercede the necessity, and it is no part of my object to berate or to underrate their usefulness. They all exist by legislative enactment. They are all under the patronage of the State, and receive assis-

tance from its funds. Some have existed for about forty years; others are comparatively of recent date. Each society receives about six hundred dollars from the State treasury. In some counties, there are two, three, and even four societies, each receiving the State bounty of six hundred dollars; so that there is a great disparity in the amount received from the State by the different counties—one receiving twenty-four hundred dollars, while others of equal territory, population and business, receive only six hundred dollars. This inequality—this giving four times as much money to one county as to another of equal rank and influence, is the cause of much jealousy and dissatisfaction.

But the chief causes of dissatisfaction with county societies, and those which greatly impair their usefulness and influence, remain to be mentioned. It is not the unequal amount of money drawn out of the State treasury by the different counties, so unjust in itself, but it is the way and manner in which the money is appropriated, and the objects to which it is frequently appropriated, that give the most dissatisfaction.

The State bounty was undoubtedly given with a view to encourage and promote good farming—economical and profitable farming—such as may be denominated skilful and scientific; whereas, it has frequently been applied by some of the county societies to purposes and objects wholly inconsistent with the interests of good farming, and of the several towns in the county. It is sufficient for my present purpose to mention only the manner in which a portion of the State bounty is expended in building up the county towns to the exclusion of the other towns which take no interest in the society; in erecting buildings and other fixtures therein for public exhibitions; in purchasing and grading lands to be kept and used for a public race-course, and thus encouraging horse-racing, with all its attendant evils, by the sanction and authority of the State; in bestowing premiums, not only upon the fleetest horses, but upon the best specimens of female equestrianism, and upon all monsters and prodigies, both in the animal and vegetable kingdom.

If we now turn our attention, for a moment, to the *town societies*, with their cattle-shows and exhibitions, in which the whole population, men, women and children, take the deepest interest, and for the success of which they exert themselves to the utmost, we shall find a very different state of things. They have no funds to lavish on objects of questionable or doubtful importance; no race-course, no fast horses, no fast women to ride them, no monster premiums for any of the monstrosities of nature or art; no, they have none of these things; but, in their stead, they have honorary premiums, or certificates of premiums for all the objects which legitimately come under the heads of good and profitable farming, and of domestic industry and economy.

The number of town societies in the State is unknown to me. They are increasing in number every year, and all very flourishing. The oldest, and perhaps the most successful, in the State, is in the town of Hardwick in the county of Worcester, which has existed for about thirty years. There are no less than three town societies in the county of Franklin, which compare very favorably with the county society.

The question, then, recurs, which will best promote good farming, county or town societies? They both possess the means of doing much to promote good farming. The county societies have, in their hands, the State bounty with which to reward those who excel in good farming; but they have no means of compelling those who happen to live ten, fifteen or twenty miles off to be present at the fair with their stock and produce to witness the exhibition and to listen to the address. Therefore, as we can not bring the people to the cattle-show, we must carry the cattle-show to the people, for their instruction and enlightenment. In this respect, town societies have great advantages over county societies.

Warwick, Mass., 1860. JOHN GOLDSBURY.

#### AGRICULTURAL SCHOOLS.

The youths at West Point are obliged to perform the duties of common soldiers, and in so far as they understand these, they make the better commanders. A body of these young men would win more battles than three times the number led by ignorance, and commanded by the same quality, however strong or muscular it may be; and the youths of our naval school will be far more efficient seamen and commanders by being taught the practical details and the philosophy of their profession at the same time. The same influence will be exerted on agriculture, when those who do its work are made intelligent by education, or made to feel that they are engaged in an occupation as full of honor as any other.

These schools are not to be established for a class. All who enter them must labor. Agriculture is to be learned in its most minute details, and all idea of degradation in the plow, the spade, the manure heap, is to be utterly excluded. Our country wants a complete displacement of that kind of false pride that leads the young men of the country to imagine there is something too humiliating, too plain and simple, in the operations of a farm for their vaulting, high-stepping ambition—that to rush into cities, to crowd into trades and professions, to live by one's wits, to demean one's self by servility, to learn arts, tricks, cunning, till dishonor too often follows the access of their fortunes, has in it something more gratifying to their self-conceit, more plausible, more flattering to a vanity that has not been made modest by disappointment, or broken by necessity.

Farmers, as a class, know little of any labor but that of the body. Their minds are dulled by toil, and routine and custom take the place of thought. As a general rule this may be true; but it must be borne in mind that necessity haunts them through their lives; that painful, exacting and severe labor are the attributes, and elements their avocation; and beginning, as most of them do, with debt and a small capital, it is an evidence of the most earnest industry, of the hardest exertion, to meet, to endure and to conquer the weight of incumbrances, the rough handling of mental solicitude, and that array of troubles that beset them in the vicissitudes of the seasons, which lie down with them at night, rise with them with each morning's sun, and move with them step by step throughout their lives. To such men, or the sons of such men, it would be foppery to offer an



education burdened with the refinement of science; they could not appreciate it, and it would be their ruin to accept it. To work is their duty and their necessity; from this there is no escape; and no farm school can prosper, or be useful, even in a small degree, in which the impression of this imperious necessity is not firmly fixed, and the mind of every youth made to feel not only that personal toil is honorable, but that his character, his success and his fortunes rest upon it.

It is schools of this kind we wish to see established; that the class to which we allude may receive such an education as will give them an intelligent view of their profession, in all its details, and lead them to love and to study the high purposes of nature, and all the magnificent objects, she lays lavishly before them. There is no difficulty in establishing schools which may, by courtesy, be called agricultural, where the taste for agriculture may be created and cultivated; where even its practice may form some part of its design. As far as they go, these are valuable; but they are not intended for the working farmer, and it would be unfortunate for him if he entered the walls of one of them. Their design is to give men of liberal means a more extended field of knowledge, to widen their sphere of action; to put them in contact, and make them familiar with the great and substantial basis of the industry of nations. So far they are of great importance, and should in every way be encouraged. But beyond this, they do not avail much. They may form a sympathy for labor, but they do not create a love for it. They may give an esteem for the child of labor, but form no desire to share his toil. They may encourage a love for the country, in itself an immense good; for there is in the depths of every, or nearly every bosom, a poetical sentiment, a natural and irresistible affection that draws men towards rural scenes and rural life; and there have been very few of the best, or most eminent men, the wearied man of business, the harassed man of care, the perplexed man of thought, who have not, at some time, looked to them as offering all the world can give of tranquillity and repose.

But it is not worth while to establish schools for the development of the poetical sentiment, or to attract men to the country, or to give opportunities, or increase the desire for retirement. To the great mass of mankind life is a stern, practical reality. To very few does it ever offer more than a passing wish, or a fugitive hope, that it may be something else, or something better. No one feels this more than the man of labor; to him there is no other poetry in his occupation than in the increase and amount of his profits; and no one has a more bitter assurance of this than the farmer, who too frequently sees, upon the inclined plane of his fortune, the expenses going up, and the profits going down.

The education to which we allude, and to which we give our adherence, is not one that sharpens the mind, but debilitates the machinery with which it works; nor one that, while it makes agriculture a liberal occupation, at the same time creates a contempt for toil and practice of it. To follow a plow is in fact as worthy as a trade; and to manage a farm requires far more mind, vigilance, attention and labor than most of the departments of business. It is true that it has

enemies to encounter, more generous, and less artful than man; that storms and vicissitudes of seasons, the immediate representations of the powers of heaven, baffle his efforts; still nature is his constant friend, and her smiles lighten his labor, and make it prosperous.—*Quarterly Journal of Agriculture.*

#### FLY CLOTHS.

The Messrs. CHASES & FAY, 233 State Street, Boston, have made a light and good-looking covering for horses, of a kind of grass cloth, which is cool, and we think ought to be extensively used. We have no doubt that such use would save hundreds of bushels of grain. A hungry swarm of flies preying upon a horse when harnessed and buckled up so that he cannot drive them off, must exhaust his resources in some degree. So if he stand in his stall and kicks the planks upon which he rests, he exhausts his powers, beside spoiling the stable, as he would in travelling on the road or plowing in the field, only it is less in degree.

There are two ways of protecting a horse from flies. One is to keep his stall dark, which the horse would probably object to, if he could speak, and the other to admit a moderate amount of light and then throw over him some light and cool covering, such as we have mentioned. This protection is still more important when the horse is on the dusty road, and occasionally passing through forests where the green flies dart upon the poor beast and bring blood at every stroke. But it is a matter of strict *economy*, as well as a *Christian duty*, to keep all the animals under our care comfortable and healthy.

"A merciful man is merciful to his beast."

*For the New England Farmer.*

#### CULTIVATING THE WILLOW.

The vast amount of willow employed in various manufactures, at the present day, renders it expedient to engage in growing it in sufficient quantity to supply the demand, instead of importing it from abroad. The purposes to which the willow is applied, are too numerous to particularize, and some new article made of this material is seen in the market at short intervals. Eaton, in the seventh edition of his manual, published twenty-four years since, describes forty species of the willow, nearly all of which are indigenous to North America; probably many species have been added to the number since that time. It would be remarkable if among so many kinds there were not some adapted to the manufacturer's use. That the climate and soil are adapted to its growth is evident from the abundance which is met with on streams and low grounds in this region. There are many tracts of land which are unproductive, and nearly worthless to the owners at present, which, if planted with the best varieties for making wares of that description, would yield a profitable return for a small investment. O. V. HILLS.

*Leominster, July, 1860.*

**THE EUROPEAN SILVER FIR.**

The Silver Fir was esteemed by the Romans for its use in carpentry and for the construction of vessels; Virgil speaks of

"The fir about to brave the dangers of the seas,"

and in describing the scenes of a particular locality,

"Hills clad with fir to guard the hallowed bound,  
Rise in the majesty of darkness round."

They also used its wood for javelins, and the Emperor Caligula had an obelisk transported from Egypt to Rome, which required the outstretched arms of four men to encircle it. In England, its wood has been chiefly used for flooring. It often grows to the height of eighty or one hundred feet, raising its dark foliage above any of the surrounding trees, but has no special claims as an ornamental tree. It requires a comparatively low situation, and a deep, rich soil, though it sometimes grows well on heavy clay. Its roots, like all the pine tribe, do not penetrate the soil deeply, but spread themselves extensively near the surface. and are, therefore, easily affected by drought.

**HILL AND FLAT CULTURE.**

When our attention, many years ago, was first called to the subject of flat culture, we determined to give it a fair trial by the side of the common system, noting carefully time, labor, and general results. We began with corn, then beans, next potatoes, etc., and with results so satisfactory, that we at last adopted the principle of drawing earth up to no plants, except for the purpose of blanching. After considerable experience, we do not hesitate to give "flat culture" a distinct approval. It is the system for our dry atmosphere, warm sun, and frequent droughts, as the hilling system may be the best for the moist climate and wet soils of England, especially where those soils are undrained. Both systems have their advocates those of the hilling system preponderating; but the other is making its way, slowly but surely, and we have no doubt it will at no distant day meet a hearty approval throughout the country. The advocates for "hilling" principally claim that it "retains moisture," "decreases the evaporation," and "strengthens" the plant, but how they do not explain; but we question the truth of these points. It is manifest to us, and it accords with observation, that a plot of ground with a level surface kept well pulverized, will retain a more uniform degree of moisture than one broken into hills. It is precisely in a time of drought, when we are dependent upon the small amount of moisture contained in the atmosphere, that the ad-

vantages of "flat culture" make themselves manifest. The leaves of plants condense the moisture of the atmosphere, and in different modes shed it on the ground, but principally by means of the stalk. Now if we take corn, for example, which has been hilled, this moisture, so much needed, is thrown off from the plant, and very little is absorbed; in fact, these hills and ridges make good water-sheds, and, becoming baked during dry weather, lose the power of absorption. Where flat culture prevails the soil can always be kept open and porous, and its absorbent powers more fully retained. In regard to "decreasing the evaporation" by hilling, it is so transparent that evaporation is increased by the operation, that we leave that point without further comment for the present. It is well understood that hilling and ridging were introduced to get rid of surplus moisture. Hilling, also, it is said, "strengthens" the plant, the word being generally used in a mechanical sense; for example, it is contended that corn, when hilled, is less liable to be blown down. We know, however, that such is not the fact; and, so far as maintaining an erect position is concerned, facts are all in favor of flat culture. Paradoxical as it may seem to some, corn that has been hilled will blow down sooner than that which has not; and when both are down, that which has been grown by flat culture will soonest and more fully recover itself, because it has less resistance to overcome.

But we must now be content with stating what we conceive to be the advantages of "flat culture" as compared with "hilling," leaving details for another occasion; these advantages are principally

the following: It demands less labor for a given amount of results; it admits of a more thorough cultivation of the soil; it lessens the evils of drought; it admits of the continued use of the best improved implements of culture; and, not among the least of its claims, it presupposes a thorough preparation of the soil, etc. Hilling, undoubtedly, has its place and its advantages, and these are chiefly found in a moist climate and a wet, heavy, undrained soil. Flat culture, we think, will prove the system for our climate, and improved modes of culture. Let it be more commonly tried, and adopted as its advantages may seem to warrant.—*Horticulturist*.

*For the New England Farmer.*

#### GROWING WHEAT—AMMONIA, &c.

Passing food through the body of an animal does not increase its ultimate fertilizing power; it adds nothing more to it for plants, at least for wheat, than the food which the animals consumed. It is contrary to nature to use plants which are capable of sustaining animal life, for the purpose merely of furnishing food for other plants.

Fertilizing matter furnished by decayed clover is not as appropriate food for wheat as the droppings of animals that live on clover. It contains too much calcareous matter, the very matter which animals need to keep up the heat of their bodies and to form fat, and which, when the clover is fed to animals, is "burnt out" while the nitrogen remains in the form of ammonia, or in compounds which readily decompose and form ammonia. This is what we need most. It not only increases the crop, but up to a certain point accelerates early maturity.

These remarks will also apply in some degree to poor strawy, leached, weathered manure. There is not enough ammonia in a ton of such stuff as many farmers call manure to make hartshorn enough for a lady's smelling-bottle. Instead of plowing in so much clover for wheat, then, let us convert it into beef and mutton, and if we can give our sheep peas or beans or oil-cake in addition, it will tell wonderfully on the manure and on the crops to which it is applied.—*Joseph Harris's Yale Lectures*.

Now, in the first place, on what principle it is that Mr. Harris can have seed pass through the body of an animal, unless it becomes thoroughly masticated and digested, I am not informed. Yet it would appear by this remark that he had found out some canal through the body of an animal whereby food could go through without digestion, or only partly masticated. We are also told that this operation adds no fertilizing powers to the food thus passed through; but that the droppings of animals are a more proper food for plants, at least for wheat, than the food which the animals consumed. Again, how it is that he separates this plant food, after it once enters the animal's stomach, from the after droppings, is a matter not made quite so plain as wanted.

We are also told that it is contrary to the economy of nature to use plant food to sustain plants that are capable of sustaining animal life. To which we beg to say that we are not aware of any ordinary plant food that is not fully capable of doing both; that is, sustaining both plants and animals, as may be. As to the economy of the two plans, both have their proper places and effects; a heavy crop of clover turned under, or of buckwheat, might create what the farmers call a "vinegar soil," in making too much acid for the wheat crop. As a general thing, however, no great failure need be feared from this plan of

turning under clover for the wheat crop. I should prefer to put on animals to feed the clover down through the season, either for grain crops or any farm crops to follow. But we are told, also, that what is most wanted in the wheat crop to carry it out, and to ripen it early, is ammonia. Very well. And also, there is not much danger of our getting too much of this ammonia for the wheat crop. Now, let us see what Dr. Webster says: "Ammonia, volatile alkali, a substance which in its uncombined form exists in a state of gas. It is composed of three equivalents of nitrogen and one of hydrogen." This is all that Dr. Webster says about this most tremendous word in agricultural science, namely, ammonia; not a very pleasing explanation for working, practical farmers to get through their heads, at best.

In fact, the term when applied to agricultural science in combination of plant life, is rather a vague affair for the practical man. In fact, our idea is that when the practical man has studied the character of his soil as to wheat-growing, that all the ammonia that is necessary for to catch and measure in a thimble, will to him be of no consequence on wheat-growing. As to how much ammonia might be found in a load of straw or weather-beaten manure, is a point we shall not cavil about. The lady could take her salts bottle to this manure heap to be filled, or to the druggist, as she liked. Again, we are told by a certain writer on "Irrigation" by rain-water, that what causes the grass to grow where the water runs out of the street in a rainy day, is, that the young grass picks up the ammonia from the rain-water. And this is what he calls "irrigation;" also, soil washed from the woods and hill lands down on to the meadows in a rainy day, is irrigation.

The first of these we should call "road-wash," the second "land-wash" from the hill-sides.—Now, letting the ammonia in rain go as it may, our idea of the fine growth of grass caused by rain-water is, that the fine particles of soil and droppings of animals from the street washed on to the grass, cause this grass to grow heavy as far as this muddy wash reaches. But irrigation proper means living running water from brooks, ponds or lakes, conducted on to the meadows, through the season, as wanted. This writer claims that running water from hard or lime water countries, is not good for the grass, but rather an injury, and only water from soft water streams is good for irrigation. Our idea is that all running water is good for irrigating grass lands, but that the soft water streams are much the most valuable for growing grass and for general soil improvement.

Again, as to the best plan and most economical for improving poor lands that are capable of being plowed well, I have but one opinion, namely, that it can be done at a much faster and cheaper rate by the use of the plow, and by grass seed sown and the grass turned under, than by keeping cattle on the soil to feed down what little poor grass grows on such thin soils. It may be true, that on such thin soils at first the cultivated grasses may not grow. In that case, a crop or two of buckwheat and oats of equal parts sown together, and then plowed under, would improve the poor soil so that grass seed after it would take. The oats sown with the buckwheat would have a tendency to correct the acid in the green

buckwheat, so that the soil should not become too sour by turning under the green crop.—In thin sandy soils that will drift by the winds for want of vegetation on the surface spurrey might be sown or planted. This plant is now grown extensively in Flanders and other European countries; the roots spread in a tangled mass together, so as to hold the sand and thus help to form a soil. That sandy drift on North Haven (Ct.) plains would be a good place to try the value of this plant.

After grass had got a fair start on thin soils, then cattle and sheep could be put on, which will improve soils constantly. In plowing under a heavy crop of clover for wheat or any grain or farm crop, instead of turning it under when in the blow, I think it would be better to wait till the crop is about half ripe, or half the heads are dead. In this way a good share of the acid would have left the stock, so that decomposition would readily take place without at all souring the soil.

Derby, Ct.

L. DURAND.

*For the New England Farmer.*

#### IS THERE ANY PROFIT IN FARMING?

MR. EDITOR:—Having read T. J. Pinkham's views under this caption, some months since, in the *Farmer*, I felt inclined to answer; but having worked on a farm for sixty years, my sight imperfect, and my hand somewhat palsied, I wisely left the pleasing task to younger heads and hands. I think the answer has been well given. But as Mr. P. has come out in your last issue with a somewhat clenching rejoinder, and called earnestly for figures, I will endeavor to give some facts which have fallen under my notice.

Sixty-four years ago this present winter, I was born in a small log-house, covered with bark, and a hovel of the same materials, and sheltering a cow, our only stock, occupied the exact spot where I sit writing. On this piece of land, consisting of 100 acres of forest, my father, with no capital but a firm constitution and strong nerves, converted this forest into a farm, on which he reared his family of five children, and gave them such an education as the stinted facilities of that time afforded. Forty-two years ago, my father sold me this farm for \$1000, and personal property considered worth \$500, for which I was to pay \$750 to my brother and three sisters. With the remainder I was to erect buildings, fence and stock the farm, and provide for my parents, at that time verging on the helplessness of age.

Now I would respectfully ask friend P. if this can be accomplished from tilling the soil, and cultivating this small farm alone? And can it be kept in a good state of cultivation without foreign manures? And if so, is not farming, even on a small scale, at least a living business?

Now for facts! And here let me say that every dollar has been drawn from this one source, *labor on the farm*. In the first place, I paid the debts to the heirs, and to my aged parents; have erected buildings, and have added some 30 acres of land. This farm, which is now occupied jointly by myself and son, who is still a young man with a young family, is worth four times its value at the time it came into my hands. For the last twenty years it has paid a small yearly profit; so that we have invested in land, stocks, &c., a sum

equal to \$5000. This is not an isolated case. I live in a town of small farmers; the present occupants have inherited their farms from their sires, who broke the forests, while some others have, in their younger days, worked for wages, until they had obtained a sum equal to the price of a wild lot, of fifty or one hundred acres; while still others have purchased their land on credit. These have made their farms, and many of them are now independent, and have laid by something effective for sickness or old age. I have in my mind an individual who worked with one of my neighbors for \$10 a month, some years since; his wife also was dependent, for her means of house-keeping, on her weekly earnings, and neither of them had a shilling but the earnings of their own hands. What is now their condition? They have a fine productive farm, with good, convenient buildings; a stock of cattle and horses, that any man might be justly proud of; he has given his three oldest children an academic education, and has recently purchased and paid for another farm.

These are a few, out of many encouraging results of farming on a small scale, without capital; without the aid of foreign manures; without the aid of science, except that gained by hard experience. I am aware that farming in the old town of Chelmsford is a different business from what it is in northern Vermont. But I would ask friend P. if he knows how much his town paid for their poor farm, on the old turnpike road, some thirty years since, and how much money it has put in the town treasury, after paying for itself in the first eight years; and whether this was the result of the profit of the orchard and wood lot? My own experience, from a long life of toil, with a proper proportion of draw-backs, from frosts, unfruitful seasons, and the multiplicity of ills that attend farming, as well as other callings, teaches me that farming has its proportion of blessings and encouragements, and if a fortune can not be made as rapidly as by some other calling, still it is a paying business; and though the farmer's progress is slow, it is sure. "I have been young, but now am old, yet have I not seen the *industrious, prudent, temperate farmer* forsaken, or his seed begging bread." J. MUDGETT.

Cambridge, Vt., Dec. 17, 1859.

SEAWEED FOR MANURE.—From the able pen of S. P. Mayberry of Cape Elizabeth, in the report of the Secretary of the Board of Agriculture, in the *Maine Farmer*, is an article upon seaweed—its uses on the sea as well as on land. I agree with Mr. M. on the value of seaweed as a manure. Almost every farmer on the coast, if he would take four parts of rockweed to two parts of his barnyard manure, two parts of muck, have them thoroughly mixed by swine, then piled up to heat, can produce more from his farm, and at one-half the expense, than he can by using any of the high-sounding fertilizers which are recommended in most of the papers. On five-eighths of an acre I cut three tons of hay the first crop. It was done by composting the manure. I would not plow in manure to raise grass, more than three inches; dress it with a light coat of top, dressing every year, and you will have large crops of hay.

## ON SHOEING HORSES.

Blacksmiths, like persons engaged in other occupations, are not always good workmen merely because they stand by the forge and smite the hot iron. Another person, who never passed half an hour in a smithy, might explain the true principles of shoeing better than he who has passed a lifetime in the actual practice of the art. It is not the hand, but the *head*, which makes the skilful and accomplished workman; and no men in the world are so tenacious of their opinions as those who have been practicing under an error all their lives. They will not listen to the philosophy of the matter which they assert, for the reason that their habit of mind has never run in that channel. These remarks apply equally to other trades, and to teaching and farming. Many of the best farmers in our knowledge, men whose principles and practices run together and produce the most profitable results from the capital employed, are retired merchants, artisans, shipmasters or ministers; and many of the most slovenly and unskilful farmers in our knowledge are those who were born and brought up on a farm, and never engaged in any other occupation! It is *mind* that makes the man, the blacksmith, the carpenter, seaman, or anything else of this nature,—not the fact that the man has been engaged in the occupation for thirty or forty years.

These remarks are suggested by reading an article in the Manchester (N. H.) *Mirror*, upon the subject of horses and horse-shoeing. The lively and versatile editor of that paper knows a thing or two about horses himself—and he is determined that all the rest of mankind shall know as much, if he can only get it out of the smiths, and the world will read his paper. We hope he will succeed in securing both—for the horse-knowledge is greatly needed, and the *Mirror* is no lag-behind, but a living, moving hebdomadal, that will wake the reader up, and be useful to him, unless he is dreadful sleepy!

But without some of friend Clark's expurgations, emendations, additions, alterations and corrections, we doubt whether his "hundreds of letters from smiths already received" will elucidate and settle the knotty question, how shall a horse be shod? As a sample of these letters he gives one from Bristol, which he says is "sensible and practical for the most part, but its theory of shoeing interfering horses will be controverted by high authority." The same letter goes on to tell us how over-reaching horses can be made to travel clear by shoeing. He says—"This is not so well understood by blacksmiths, generally, as interfering. Long shoes should be used in order to remedy this; the forward feet should be pared low at the heels, and leave the toe so as to cause

the foot to rise at the heel and give the hind feet a chance to shoot under as the others rise. The hind shoes should be set on as usual, but should be made with a heavy toe, and turned to give the forward one a chance to get out of the way."

As we understand this matter, the exact *reverse* of this teaching is the philosophical view of it. For instance: a horse strikes his hind foot against the forward one, because the forward foot is not taken away quick enough. What is the remedy? Certainly not to have the forward feet "*low at the heels*," for that would keep the foot down longer and make the interference worse. Nor is it desirable that the hind foot should pass *under* the forward one. To prevent over-reaching, then, try this plan, which can be done without paring the hoof at all. Make the *heel* calks on the forward shoes a little *longer* than usual, so that, the foot being raised a little behind, the horse will take it up quicker than he has been accustomed to. Now make the *heel* calks of the hind shoes a little lower, and what is gained by accelerating the forward foot and keeping back the hind one, will give time to get the fore foot out of the way, and there is no more over-reaching. We have cured very bad cases of over-reaching by this simple process, and never knew it to fail when properly attended to.

We have as much faith in the skill of blacksmiths in their business as we have in that of those engaged in other occupations, and the more of them that read this article the better, if it only leads them to regard *principles* more and *theories* less.

## THE REARING OF THE HIPPOPOTAMI.

The managers of the Jardin des Plantes in Paris have had a series of bad luck in the rearing of hippopotami. Their maternal hippopotamus has now given birth to three young ones, but each has been lost when but a few days or weeks old; one, if not two, were killed by the mother, and the last, saved from a similar fate by immediate removal, died with convulsions brought on by teething. The circumstances are given with affecting detail. The birth was on the 18th of May, and the infant animal (a male) was received on the brink of the basin of the rotunda, in the arms of his keeper, and immediately taken away. The maternal hippopotamus had no time to see her offspring, and yet she indulged in a long fit of anger. Without the aid of an enormous whip with which the keeper was furnished, he could hardly have secured his retreat, but by its aid he succeeded in getting out of the basin and shutting the grate behind him. The young hippopotamus was placed in a basin exposed to the sun, and he immediately took to swimming and splashing about as though he had taken lessons from his father and mother. He was fed on warm cow's milk, which he drank with avidity; in four days he consumed nearly three gallons of it. He slept a good part of each day on a bed of straw



covered with a flannel blanket; the rest of the time he amused himself in a basin of warm water. His keeper, who did not leave him for a moment, could not make the least movement but his nursing would open his eyes enough to assure himself that his adopted father was not going to leave him. At night he slept with his head on his keeper's breast, and slept well until daybreak. When he wanted to drink he roared like a calf, which indeed he somewhat resembled in form. He measured about four feet in length, and weighed 130 pounds at birth. His skin, soft moist and mellow to the touch, had nothing of that rose-tint which characterized the two other hippopotami born in the menagerie in 1858 and 1859. It was blackish in some places, and in others of a grayish-white. There was also a very queer orange tint about his lips. On the 2d of June it was noticed that several teeth were coming through. While they were wondering at this precocity, the poor animal was taken with convulsions, and died in a few minutes.

*For the New England Farmer.*

#### FARM HINTS AND FARM FACTS.

Never set out an orchard with a view that in future time it will take care of itself. Remember first to subsoil, and like your hills of corn and potatoes, manure the land heavily from season to season; plant with potatoes or carrots to keep the earth mellow; avoid a grain crop, as in ripening, it reflects too intense a heat for young trees. This was my experience in a winter wheat field two successive years.

Never plant trees on poor soil, and expect thrift with large fruit.

Never crowd your trees, which is a very common error. Calculate their spread when fully grown, so that a good crop of hay may be taken off. Give them the full range of sun and atmosphere.

Never cultivate caterpillars instead of apples—the crops are uncongenial. One is money in the pocket, the other dirty, destructive and unprofitable. Give the farm boy a penny a nest, start him with the rising sun, and my word for it, his eagle eye and love for pennies will clear away this orchard-pest, and return to you five dollars for every penny out of pocket. They are easily seen when the nest is found.

Never cease to fight the canker worm; while the lion and tiger are easily slain, this inferior creeping thing has successfully battled and out-generalled the whole staff of horticultural wisdom. Would not the fumes of fire and brimstone mixed with tar be a good application when the worms are feeding?

Never move among young trees without a heavy jackknife in your pocket, and an eye upward to redundant limbs; cutting here, sawing there, and giving shape early for the future, always remembering that the displaced limbs and twigs are by root and sap made up at once to the remaining branches. The Porter or Northern Spy incline to spiral or distaff tops; the Greening and Russet to spreading branches; the Baldwin and Hubbardston Nonsuch to close brushy tops. Here the pruner must exercise judgment; how much easier to gather fruit when the tree is well opened, how

much larger and fairer the fruit! It is the sun that draws out the full blush and gives the full flavor. Prove this by eating the apple or peach from the sunny or the shady side.

Never cultivate shade trees in your fields by the road-side,—rather make them fruit trees, that blossoms and fruit may charm the traveller and reward the farmer with a good round income. Anything out of place is not ornamental. Give the shade tree a place in the roadway and around your buildings, especially; it shows taste and refinement. The New England towering elm is the unrivalled emblem of majesty.

Never neglect the little quince tree that can grow in niches and corners; cultivate it as a tree, and not as usual, as a bunch of bushes. A fine stone wall interlined with a quince tree hedge at eight feet distances is highly ornamental and profitable. How easy to grow quinces.

Never forget the birds whose music awakes you at early dawn, and who sing you to sleep in the late, lingering twilight. Give the robin an extra cherry tree and a strawberry bed. Build a house for the wren, the martin and the swallow; help them to feed their twittering young. How much are they daily helping you! Cultivate their (and all birds,) acquaintance socially, not as enemies, because their tastes are so refined as to love your strawberries and cherries.

The crow offends by pulling up your corn, yet he is the unpaid scavenger in removing offal and numerous vermin that annoy you. The hawk affectionately dips into your chicken brood, showing a decided relish for uncooked poultry, but he had been hunting and sailing all over your premise for snakes and mice to satisfy his hunger, and found none.

The owl robs your hen roost in the blackest night. Educated thieves go to prison for this same offence. Which of the two are the better members of society?

H. POOR.

*Brooklyn, L. I.*

*For the New England Farmer.*

#### PROFITS OF FARMING.

MR. EDITOR:—From careful reading as well as observation, I have come to the conclusion that there is some fallacy in the manner by which farm accounts are kept, or the way in which the different operations of the farm are passed to debtor or creditor. How, otherwise, are we to account for the very different conclusions to which some writers come, on this subject? That the farmer, with a fair sized farm, free from debt, with ordinary buildings, stock and tools, is among the most independent men which this world can show, ought to be plain to all. That he has every means at command for getting a good living, and sustaining his family respectably, and often putting by something for old age, or a rainy day, is a generally conceded fact, and it is patent to any observer of this very large class throughout the country, especially in New England, where if anywhere in the United States, farming is hard work. That there are thousands of this class, whose area of land is less than one hundred acres, who so manage thus to live, and who are in more senses than one the right arm of the State, is another fact. That they have to work hard, and

practice rigid economy, I do not deny; but that they live respectably and comfortably, some few, indeed, luxuriously, go to meeting with good clothes on, with wife, sons and daughters well and fashionably dressed, with horse and carriage, good enough for a lord; whose families are mentally, as well as bodily, well cared for, is another fact, which any person may prove for himself, by attending church on the Sabbath, in almost any of our country towns.

If, as some who have lately written, as published in the *Farmer* within a short time, say, the farmer does not, or cannot, make a living by attending solely to his legitimate business, that it is a non-paying pursuit, how is it, or why is it, that these things are so? Here is a fair and large field for investigation. If farming, as generally practiced in New England at the present day, is a non-paying business, contrary, it seems to me, to the common idea, then let us know it, and have a fair understanding of the whole matter, so that none may "go it blind," or spend his strength for naught. That the majority of farmers are not so particular in keeping a correct account with their various operations, I am willing to admit. I think they would find it interesting and profitable to do so; at any rate, they could at any time ascertain their exact standing with the world, and with their different operations, and self-interest ought to prompt them to do this. Why should they not do so, as well as the trader, manufacturer, lawyer, or doctor? Certainly their operations are no more complicated than theirs; while, if they kept such an account, all guess work would be removed, and the farmer would be able to tell at a glance, what branch of his business paid and what did not, much better than under the old system of going by the guess book. But that farming does not pay, and is poor business to follow in order to insure a good living and fair profits, I am not willing yet to admit. I concede there may be poor farmers, as there are poor doctors, &c., and until the majority of farmers cease paying their debts and go into insolvency, I probably shall not. Let this matter be fully discussed, and individual experience brought to the test. I am open to conviction. Give us your ideas on this subject, brother farmers; facts will settle this matter, I think, much sooner than any theory, or statement.

NORFOLK.

*King Oak Hill, 1860.*

**THE IDEA OF FIRE AMONG THE ANCIENTS.**—According to Pliny, fire was for a long time unknown to some of the ancient Egyptians, and when Euxodus, the celebrated astronomer, showed it to them, they were absolutely in raptures. The Persians, Phenicians, Greeks, and several other nations, acknowledged that their ancestors were once without the use of fire, and the Chinese confess the same of their progenitors. Pompanius, Mela, Plutarch, and other ancient authors, speak of nations who, at the time they wrote, knew not the use of fire, or had but just learned it. Facts of the same kind are also attested by several modern nations. The inhabitants of the Mariana Islands, which were discovered in 1521, had no idea of fire. Never was astonishment greater than theirs, when they saw it on the descent of Magellan on one of their islands. At first

they believed it was some kind of animal that fixed to and fed upon wood. The inhabitants of the Philippine and Canary Islands were formerly equally ignorant. Africa presents, even in our own day, some nations in this deplorable state.

*For the New England Farmer.*

#### WATER PIPES.

**MR. EDITOR:**—As there have been several inquiries in the current volume in regard to pipes or tubes for conveying water to farm buildings for the use of the stock and domestic purposes, I thought to add a few words.

As good pure water, and a constant supply, too, is very important, and as but few farm buildings are so situated as to have a full supply in the right places till it is conveyed there through some means, it becomes an important question, what shall we use for this purpose?

My experience has been with wood and lead pipes, or as they are called here, "aqueducts," wooden or lead, as the case may be. Lead was formerly used quite extensively by those of competent means, till it was found to be very liable to get out of repair, and injurious to those using the water which was thus supplied, however healthful it was at the fountain, generally. Yet to this day it seems, by your columns, some deny the deleterious effects imputed to the poisonous lead; though perhaps difficult of demonstrative proof, yet experience of the many, and analogy, ought to be sufficient warning to one and all against lead pipe. The wood generally used is fir, spruce, pine and hackmatack or larch; but were I to have my choice, it would fall upon the larch.

Timber should be cut in the fall or early in the winter, and in size six to ten inches in diameter, and of such a length as can be handled and bored conveniently, say about 10 feet. The bore should not be more than 1½ inches, instead of 3 to 4 inches, as one correspondent recommends, because the water will not stand in the logs near so long before it is used after leaving the fountain head; they will last longer, are much easier bored of this size, and are not near as liable to freeze up in "cold snaps," like January, 1859. The beautiful, lively sparkle of the water in the fountain is retained only through constant change; hence the smaller amount confined in the conducting pipe, of any kind, the better will it come from the faucet.

In regard to durability there will be a great variation, even with the same kind of wood, in different situations. I have seen fir logs that had been laid 20 to 30 years, that were then in good repair, and I have seen them where they had been laid but 10 years, so decayed that it was necessary to relay them, or put new logs in. Those which had lasted so long were in soil that kept them wet or moist all the time, while the others were wet and then dry at times, or nearly so, being in a yellow, ledgy soil.

The cost will vary materially in different localities. Here in Franklin Co., Me., it costs twenty-five cents per rod for boring and laying, upon an average, when done by those who are responsible for a good job, beside boarding the hands. The cost of the logs, digging, trenching and filling, according to local circumstances.

O. W. T.

*Elm Tree Farm, Maine.*



**WIND POWER FOR GRINDING CORN.**

Having suffered much inconvenience in getting corn ground at a distant mill, and being dissatisfied with the corn, and cob, and grist mills, advertised, I fell back on my own resources, and after some preliminary experiments, I fixed a mill as follows. It is successful:

I cut off a post oak 11 feet from the ground, and made a 6 inch tenon, 5 inches diameter on top; split out a puncheon 7 feet wide, 5 inches thick; 3 feet from one end I morticed a hole to fit tenon on tree, and mounted it to its place; 18 inches from centre of tenon, on each side nailed pieces 4 feet long, 6 inches wide, 2 inches thick, fore and aft the tree and parallel to it; a piece of the same dimensions fixed on to lower ends of the same, horizontal and parallel to puncheon, on both sides, and reaching aft to end of do., braces from each end of puncheon to meet these at the lower end of perpendiculars on both sides, completes a firm and strong frame which revolves on tenon; transverse pieces on each side the tree, fore and aft, bind the sides together, and if they project a little, form a support for a plank to stand on.

Now for the shaft. A piece of pine 7 feet long, hewed to 8 inches square, and the corners taken off, an iron band on the end for the hub, divide the circumference into six, the number of arms, which gives a distance of 60 degrees, and four inches from the band, mortice three holes 2 inches square, through the hub; then cut out a neck 5 inches diameter, and 5 inches long. Get two pair of friction wheels, such as are used for a grindstone; screw one pair down to front end of puncheon, and the other at after end of shaft, for the shaft to run on; nail a collar on the end of puncheon to fit loosely on to neck of shaft, just in front of friction wheels—it is not to bear any weight, but merely to keep the shaft from jumping off. Of course, the after wheels have a neck of the same dimensions. The mill is bolted on to a short post, fixed on to after end of puncheon at right angles to it; the axle of the mill is received into a square hole in a plate screwed on to end of shaft. As the mill requires to reach somewhat over the puncheon to obtain firm support, the shaft must be fixed accordingly; a hole through the puncheon conducts the meal, in a sleeve, from the spout of the mill to a barrel or bag placed on the stage beneath.

Thus, it is easily seen that the whole power of the wind acts on the grinding surface of the mill *directly*. Three pieces of well seasoned scantling 2 x 2 inches, well balanced and fitted into mortice holes, making 6 arms 8 feet long from centre to hub. Strong domestic, 5-4 wide, and 5 yards long, making a square, which, cut cross cornered, will make the two sails and a sleeve to each to fit the arms; which may thus be put on and off readily. The edges should be strongly hemmed and drawn somewhat tight, so as not to flap; the corner tied to the next arm by stout string. This will be found power sufficient to grind in a light wind; if the wind is strong, three sails only need be spread.

With such a wind-mill I have ground meal for the house—have fed five horses and six hogs on meal too.

I consider the saving of feeding horses equal

to one-third—certainly one-fourth. A wood hopper to contain one bushel of corn can be attached; then the farmer can wedge his mill in the right position and go on with his work, having the satisfaction of hearing his corn crack half a mile off! If we had an improved steel mill to the common hand mill it would be an advantage. One to stand like a clock, for instance, and to screw down to puncheon.—*Southern Cultivator*.

**USEFULNESS OF SOOT.**—This article is often wasted, being thrown into the ash-heap, or dumped on the ground at the back door, and no use made of it. Both science and experience show that it is a valuable manure. If used as a top-dressing to grass, it produces a marked effect. When sown broadcast, some of its ammonia becomes volatilized, and is wasted in the atmosphere. Therefore, it should be mixed with water, and applied as liquid manure. Twelve quarts of soot to a hogshead of water make a powerful fertilizer.

**LADIES' DEPARTMENT.****MATRIMONY SANS PATRIMONY.**

"I am a clerk, with eight hundred dollars salary, and yet my wife expects me to dress her in first-class style. What would you advise me to do—leave her?" These words I unintentionally overheard in a public conveyance. I went home, pondering them over. "Leave her!" Were you not to blame, sir, in selecting a foolish, frivolous wife, and expecting her to confine her desires as a sensible woman ought, and would, within the limits of your small salary? Have you, yourself, no "first-class" expenses, in the way of rides, drinks and cigars, which it might be well for you to consider while talking to her of retrenchment? Did it ever occur to you, that under all that frivolity, which you admired in the maid, but deplore and condemn in the wife, there may be, after all, enough of the true woman, to appreciate and sympathize with a kind, loving statement of the case, in its parental, as well as marital relations? Did it ever occur to you, that if you require no more from her in the way of self-denial, than you are willing to endure yourself—in short, if you were just in this matter, as all husbands are not—it might bring a pair of loving arms about your neck, that would be a talisman amid future toil, and a pledge of co-operation in it, that would give wings to effort? And should it not be so immediately—should you encounter tears and frowns—would you not do well to remember the hundreds of wives of drunken husbands, who, through the length and breadth of the land, are thinking—not of "leaving" them, but how, day by day, they shall more patiently bear their burden, tolling with their own feeble hands, in a woman's restricted sphere of effort, to make up their deficiencies, closing their ears resolutely to any recital of a husband's failings, nor asking advice of aught save their own faithful, wifely hearts, "what course they shall pursue?"

And to all young men, whether "clerks" or otherwise, we would say, if you marry a humming-bird, don't expect that marriage will instantly con-

vert it into an owl; and if you have caught it, and caged it, without thought of consequences, don't, like a coward, shrink from your self-assumed responsibility, and turn it loose in a dark wood, to be devoured by the first vulture.—*Fanny Fern.*

#### DOMESTIC RECEIPTS.

**TO PUT UP CUCUMBERS, MELONS, TOMATOES, PEACHES, &c., FOR PICKLING.**—As good vinegar is not always at hand, the best way is to prepare a brine in a tub or barrel, and save your pickles as they grow. The brine should be made of common salt and water, and strong enough to bear an egg. When the tub is full of pickles, allow the brine to cover them; then cover them over with cabbage leaves, and a board and weight to keep them in the brine.

They should be soaked in fresh water three days and nights before using to extract the salt, frequently changing the water. The great art in making good pickles is to have good vinegar. The best vinegar for pickling is made of apple cider. After your pickles are sufficiently soaked, put them in a brass kettle with vinegar enough to cover them, and scald fifteen or twenty minutes, put them in jars, and pour hot vinegar over them; flavor them with cloves, black pepper, an onion or two, and a little horse radish and ginger. For making mangoes, the filling should be made of nasturtiums, small beans, small cucumbers, onions, white mustard, horse-radish, allspice, black pepper, mace, cloves and ginger; tie up a tea-cupful of turmeric, and put it in a jar; after being stuffed and tied up, they are made as cucumber pickles.

**TO MAKE RHUBARB WINE.**—Trim off the leaves and grind and press the stalks in any cider or other mill. To each gallon of juice, add one gallon of water, and six pounds of refined sugar, and fill the casks, leaving the bungs out. A moderately cool cellar is the best place to keep it. Fill up occasionally, either from juice kept on purpose, or with sweetened water, so that the impurities which rise to the surface while fermentation is going on, may be worked off. When sufficiently fermented, which will require from one to two or more months, bung tightly, and let it remain until winter, when it may be racked off into other casks or bottled. Some persons refine it before bottling, by putting into each barrel two ounces of isinglass, dissolved in a quart of wine.—*American Agriculturist.*

**SOUPS.**—Soups, when properly made, are very wholesome, and an almost indispensable appendage to a dinner. But how few cooks know how to make it wholesome and palatable. To prepare good soup requires more skill and labor than almost any other principal dish, and few ever learn, and those who know how, seldom go to the trouble of making it right. In a majority of families—we are safe in saying nine out of ten—really good soup is never eaten, or soup that is not indigestible. They think that to be good, it must look very yellow, and made so by half an inch of grease on the top. Now, the truth is, there should be little or no grease about soup. It should be made of lean meat boiled, or rather simmered, for a long time—say half a dozen hours—and then strained and boiled again. A little brown flour,

prepared as the Germans do for their “burnt meal soup,” gives it a dark color. Some add a little sugar. Above all things, keep away grease from soup, commonly known as “fat,” if you want the soup to digest in the next six or eight hours.

**DELICIOUS VEAL CUTLET.**—First take your cutlet and beat it with the flat side of the cleaver or rolling-pin. Beat it for about five minutes, then, having thrown a quantity of butter, eggs and flour into a frying-pan, when the mixture is hissing hot, put your cutlet in, and there let it stew. The mixture will penetrate to the core, and is imbibed in every part.

**TO DESTROY FLIES.**—To one pint of milk add a quarter pound of raw sugar, and two ounces of ground pepper; simmer them together eight or ten minutes, and place it about in shallow dishes. The flies attack it greedily, and are soon suffocated. By this method, kitchens, &c., may be kept clear of flies all summer, without the danger attending poison. We copy this from an anonymous source. It is easily tried; and if effective, will be valuable.

**CURE FOR CORNS.**—Take two ounces of gum ammoniac, two ounces of yellow wax, and six drachms of verdigris; melt them together, and spread the composition on a piece of soft leather or linen. Cut away as much of the corn as you can with a knife before you apply the plaster, which must be renewed in a fortnight, if the corn is not by that time gone.

#### LADY JANE GREY'S CHARACTER.

Jane Grey, eldest daughter of the Duke of Suffolk, was nearly of the same age with Edward. Edward had been precocious to a disease; the activity of his mind had been a symptom, or a cause, of the weakness of his body. Jane Grey's accomplishments were as extensive as Edward's; she had acquired a degree of learning rare in matured men, which she could use gracefully, and could permit to be seen by others without vanity or consciousness. Her character had developed with her talents. At fifteen she was learning Hebrew and could write Greek; at sixteen she corresponded with Bullinger in Latin at least equal to his own; but the matter of her letters is more striking than the language, and speaks more for her than the most elaborate panegyrics of admiring courtiers. She has left a portrait of herself drawn by her own hand; a portrait of piety, purity, and free, noble innocence, uncolored, even to a fault, with the emotional weaknesses of humanity. While the effects of the Reformation in England had been visible in the outward domination of scoundrels and in the eclipse of the hereditary virtues of the national character, Lady Jane Grey had lived to show that the defect was not in the Reformed faith, but in the absence of all faith—that the graces of St. Elizabeth could be rivalled by the pupil of Cranmer and Ridley. The Catholic saint had no excellence of which Jane Grey was without the promise; the distinction was in the freedom of the Protestant from the hysterical ambition for an unearthly nature, and in the presence, through a more intelligent creed, of a vigorous and practical understanding.—*Froide's History of England.*



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### TALK ABOUT SEPTEMBER.

"There is a beautiful spirit breathing now  
Its mellow richness on the clustered trees."



SEPTEMBER is, perhaps, the most beautiful month of the twelve. It has not the east winds of spring, the intense heat of summer, nor the cold northerly blast of later autumn. Yet a shadow rests upon its beauty, because we begin to see signs of decay.

We know that the sun is turning his back upon us, and that we must soon bid farewell to the verdure that has charmed us for a little while. A few yellow leaves are, perhaps, all the positive evidences

of decay yet visible, but a general serenity has diminished the rich green of summer, and banished that freshness which will return no more for many months. But then it is never wise to let the storms and inclemencies that are *going to be*, cloud the sunshine that *is*.

For further consideration we have the fact that summer did not depart till her work was done. Her bright suns and pleasant rains gave us plenty of cherries, currants, berries, &c., &c., and left the premises for the months of the garnered sheaves, and gathered grain—of apples, pumpkins and other delightful things which glad the hearts of industrious Yankees. And autumn will finish the work summer laid out for her, for Nature is, in the main, very reliable. She will not bring us a cold, stern winter, without first supplying us with life's comforts. Our vegetables and

fruits shall ripen, our pigs and turkeys grow fat, and then we can retire to our dens (figuratively) and defy "rude Boreas" and all his train.

The changes of the seasons are, on the whole, a pleasant variety to most people. Even a perpetual spring would become a monotonous affair after a while. But how different are the voices of autumn, and the voices of spring—both delightful in their way. Already we miss many voices from the full chorus that saluted us a few months ago. The frog, whose voice came from every bog and meadow and brook in the warm twilights of April, has said his say, and retired from the stump, like a sensible orator, when he has expressed his sentiments. Or, if we do hear him at all, it is but a faint peep—he has evidently lost the zeal which characterized his first efforts. The robin, having seen her family through their state of babyhood, has settled quietly down to a matter-of-fact existence. The blackbirds, who, while planning their summer's work, are perfectly tumultuous, have long since ceased to hold their caucuses on every tree. The whip-poor-will is not heard much after July comes in—but he can hardly be said to belong to the full choir of which we have spoken, as he only comes abroad in the night when all but owls and people with unquiet consciences are sleeping. Where does he go, and why does he leave so early?

We have spoken of the voices of spring. Now what are the voices of the autumn? They are few and generally mournful. An occasional note from a solitary bird, the caw of the crow as he flaps lazily through the air—the tree-toad predicting rain with more certainty than the weather-vane that points East on your barn. These are the sounds we hear on a quiet autumn day. The chirp of the grasshopper and cricket are saying, too, "Summer's gone—summer's gone!"

Our fields and gardens, also, bear witness of the same thing. Instead of the modest but fragrant little flowers, that came when the snow first

went away,—or the roses and syringas of a later date, we have now beds of flaunting, gaudy, but almost scentless phloxes—the dahlia, marygold and aster. Then the cardinal, whose scarlet blossoms made the meadow so gay in August, has had its day, and the clematis has changed its white blossoms for a feathery mass of little curling tendrils.

At home, too, we insensibly glide into a different way of life. Instead of gathering about the great front door, or sitting out on the piazza of an evening, we come to the bright parlor lamp, and say to each other that the evenings are growing chilly, although nobody likes to insinuate that it is time for fires yet. It doesn't come amiss, though, if we can get a seat near the kitchen stove, accidentally, while the tea is being prepared.

There is something very pleasant in this reassembling of a family group around a common centre, after the more wandering habits of hot weather, and the social delights of autumn and winter evenings go far to compensate for the loss of the delicious romance of summer.

As a farming community, we have had, on the whole, our usual prosperity during the present season, although the disease among the cattle has caused pretty serious inconvenience in some localities. But we hope that time, and a better acquaintance with the disease, will remedy the evil.

There have been, perhaps, about the usual number of events capable of furnishing subjects of talk at stores and depots, and the corners of the streets. There was the tornado at the West which carried cows and horses through the air as if they had been so many insects—and the storm in this vicinity which did not "spare that tree" on Boston Common,—a comet with a tail about as large as that of a good sized rat, and a partial eclipse of the sun. So much in the way of meteorology and astronomy.

Then, to descend to a lower sphere, there have been the Presidential nomination, a visit from those diminutive specimens of humanity, the Japanese, and the sailing of Dr. HAYES toward that Unknown Sea, and the unknown regions that may lie beyond, the search of which has already cost so much in money and human life. Success to the brave navigator.

When the stray items of another summer are gathered up, may pleasant returns from him and his crew brighten our recording page!

**FINE DIFFUSION OF GOLD.**—Professor Faraday supposes that if a leaf of gold, which is only 1-280,000 of an inch thick, and weighs about 8.2 of a grain, yet covers a superficies of nearly ten square inches, were diffused through a column of solution having that base, and 2.7 inches in

height, it would give a ruby fluid equal in depth of tint to a good, red rose; the volume of gold present being about the one five hundred thousandth part of the volume of fluid.—*Timbs' Curiosities of Science.*

*For the New England Farmer.*

#### CUTTING AND CURING OF HAY.

There is no part of the farmer's employment in the month of July of more importance than this. When and how grass shall be cut for the making of hay, are inquiries that will be likely to be answered, according to the education and practice of those who answer. I have supposed that grass should be cut when grown, so as to produce the greatest weight when cured—say between the bloom, and the maturing of the seeds. If suffered to remain longer than this, it becomes hard and wiry, and loses that aromatic flavor which is the beauty of new-mown hay.

My attention has been drawn to this point, by the assertion of gentlemen of experience, that it is best to let grass stand until fully ripe, before it is cut, because it will then be quicker and easier made into hay. I cannot concur in this opinion.

How shall it be cut, with a scythe, or with a mower, by horse-power? I had supposed it to have been demonstrated, again and again, that full one-half the expense of cutting can be saved by the use of a mower of approved construction. I know nothing to the contrary of this, unless it be, that the expense of fitting up mowers will be disproportionate to the wants of small farmers. Where this is so, several farmers, in the same neighborhood, may unite in the owning of a machine; and have a common operator to guide it.

A machine can be used for the cutting of ten acres per day, without unreasonable fatigue to man or beast. This would require the labor of ten men—as work is usually done with a scythe. I therefore unhesitatingly approve of dispensing with the use of man-power, when it can be done so advantageously as in the cutting of grass.

*Essex Co., Mass., July, 1860.*

**REMARKS.**—So mote it be, Mr. \*. *Prejudice* is more than a "monster of frightful mien"—for if it would frighten some persons into a sense of their own interests, it would be well. But it does not, for they worry along for years fighting directly against their own comfort and interest, merely because they are determined the world shall go no faster than they do.

#### COLIC IN HORSES.

A correspondent of the *Farmer's Advocate*, (E. S. Phelps, Jr.,) gives the following recipe for colic in horses:

"I knew a horse taken with colic while on a tread-wheel to a carding machine, so that the owner thought he could not live. He got three veterinary surgeons, and they did what they could, and all decided the horse must die. The man's wife, who believed and practiced hygiene, from the time the horse was taken, tried to persuade her husband to use a wet bandage, but he insisted

it would do no good. After all had given up that the horse could no longer live, by her entreaties, (the doctor saying it could do no good or hurt,) he took a thick bed-comforter, bound it around the horse, went to the well and drew water, and poured it on till thoroughly soaked. It steamed like a pot boiling. In less than fifteen minutes from the time he commenced the watering process the horse was up and eating, to the great surprise of the horse doctor, who knew he could not live. The horse did good service afterwards. This recipe I gave several years ago, and it was copied into most—as I was told by an editor—of the agricultural, and many other papers of the United States. Many have tried and proved it. Try it, brother farmer.

#### THE CROPS OF 1860.

The general evidence from all quarters is to the effect that the crops of 1860 will be abundant. Of course, in some sections of the country the farmer has not been so fortunate, and particular crops show the effects of the drought, the storm, or the insect—but such cases are merely the exception which prove the general rule.

In New England the hay crop is generally short, from one-quarter to one-half less than the average. Fruit, grain and vegetables promise unusually well. We present a few extracts from our exchanges in various parts of the country.

The Lewiston Falls (Me.) *Journal* states that on new fields in Lewiston and adjoining towns there will be nearly as much hay cut this year as there was last, but on old fields there will not be more than one-half or two-thirds as much. On both old and new fields the hay is heavier according to bulk, and of a much superior quality. It will be secured in better order than for a number of years. Grain, corn, potatoes and other crops look remarkably well, considering the long drought. In Somerset county grass looks remarkably well. Wheat sowed from the 15th to the 30th of April goes clear of the weevil, and will produce from sixteen to thirty bushels of first quality grain per acre, if storms do not injure it. Corn never looked better. On Friday and Saturday nights of last week there was a slight frost in many places in the State of Maine.

The Burlington (Vt.) *Phoenix* says that the hay crop in that county promises to be greater than that of last year, and that was larger than any one preceding it for a number of years. Since the middle of June the weather has been unusually propitious for its increase, and although late, the growth in moist, uncut fields still continues. Corn and oats are exceedingly thrifty, and the crops of both will be large.

The Rochester (N. Y.) *Advertiser* says the farmers are now securing an abundant harvest of Genesee wheat. All concur in saying that the yield is not only handsome, but the quality is remarkably fine. The Oswego *Palladium* says that

many pear and apple trees are struck with blight.

The wheat and corn crops will be large. The reports from Illinois and Indiana of a blight in the apple trees of that State. It resembles that which affects the pear, and seems to be that are full of fruit. The grain crops bids fair to overtop any of previous years. The bountiful harvest of 1857, when the crops were as follows:

Corn.....	82,555,186 bush.
Wheat.....	25,397,614 "
Oats.....	25,000,000 "
Other small grains.....	3,000,000 "
Aggregate.....	135,952,800

This aggregate, large as it is, will probably be increased in 1860. The Cincinnati *Gazette* thinks the wheat and corn crop may be more, the oats not as much.

A private letter, recently received from one of the largest South Carolina planters, says: "We are in a terrible drought and heat here. It is settled that the corn crop of the South will be very short. As to cotton, greatly damaged now, no one can say for a month to come what it may do. I am now mainly a corn planter. Six weeks ago I expected to make 70,000 bushels; I will now compound for 40,000. I expected, also, 600 bales of cotton, but now only count on 400, but may make a little more."

From every quarter of Canada the prospects of the coming harvest are most cheering. The only exception to the productiveness of crops is said to be that of hay, which is light; but even of that the quantity is expected to be much larger than the yield of last year.

On the whole, we consider the reports exceedingly encouraging, and another proof, if that were wanted, of the unfailing fulfilment of the promise that, "while the earth remaineth, seed time and harvest shall not fail."

**THE PENNSYLVANIA OIL SPRINGS.**—Less is said, perhaps, than formerly, about the newly-discovered oil springs in western Pennsylvania, but the oil is there, and all the original local excitement; and when railroads shall have been built through the region, and arrangements made for working his source of incalculable wealth, the new branch of industry will assume no mean proportions. There are now within the radius of a mile from Franklin, Pa., over one hundred oil springs, in only eight of which pumps have been put to work. Some of these yield forty barrels a day, while the general average of all the wells is twelve barrels. But barrels cannot be got, and when got the facilities for getting to market are of the worst kind, so very little is being done, now, more than to prospect for new bores and hold on to the old ones. Proprietors will not sell at any price, and calculate their springs freely at anywhere from \$10,000 to \$100,000. The oil is of good quality, and worth in its crude state thirty cents a gallon in New York.

## DIVISION OF LABOR IN FARMING.

Within the recollection of middle-aged people, great changes have taken place in the household industry of farmers' families. Many who now buy their own, and much of their children's clothing ready-made, were dressed in their childhood with garments that were spun and woven, cut and made, by their mothers and sisters, with a few days' assistance, perhaps, on the winter coats, by the tailoress of the neighborhood. The transfer of the loom and spinning-wheel from the family to the factory is very differently regarded by different individuals. Some think that the result of this change will be the gradual loss of that industry, tact and independence, which has given character to the people of New England, while others take a more hopeful view of the subject.

Whether we lament or rejoice over this change, it can be regarded but as a manifestation of that "spirit of the age," an evidence of that tendency of our times, which merges the individual in the mass, which substitutes associated for solitary labor, and thus makes even the baleful atmosphere of the factory more attractive than the pure air of heaven. Hence we are not surprised to see by the census returns, that, while our cities and villages are rapidly increasing in population, many thinly settled portions of the country are gaining but slowly, some are stationary, and not a few are actually decreasing in population.

Farming has been generally regarded as necessarily an individual or solitary business. The hand that fells the trees, must drive the team, thresh the grain, guide the plow, swing the scythe, sell the produce, buy stock, dress the pigs, and do up all the various jobs and chores, in doors and out, that fall to the lot of the farmer.

The division of labor, which, anomalous as it may sound, must be called the first principle of association, and the use of machinery, which may be termed its second principle, has been supposed to be inapplicable to farming, except to a very limited extent.

These limits are, however, extending every year. At the West, it is common for one individual to equip a "breaking-up plow," and devote himself exclusively to this one branch of farming, during the entire season. Another goes the rounds with a patent reaper, and some one else with a threshing-machine. Several individuals in Massachusetts have purchased machines, and have done up the mowing for their neighbors, during the past two or three seasons. It is also a common practice near large towns, for milkmen to do the marketing of this article for their neighbors.

We find, however, in the *Ohio Farmer*, an account of a new application of this principle. Mr. Lysander Pelton, of Gustavus, Trumbull county,

Ohio, has established a cheese factory, where the curd from more than two hundred dairies is manufactured into cheese. He has erected suitable buildings, with sufficient shelving for three hundred and fifty tons of cheese. In April, he contracts with all the farmers within a district of eight or ten miles square, who are willing to sell their curd, which is collected by Mr. P. and which employs from six to eight teams. The agreement is that the curd shall be sweet, and that ten pounds of it shall make seven pounds of cheese. "For two years past the price has been 4½ cents per pound net." The curd from each dairy is separately tested at the factory, and its amount of shrinkage, which is various, determined by experiments; if over 30 per cent., the excess is deducted; if less, it is added. The curd is sliced and ground fine by machinery, and the whole establishment is arranged in factory style, and with strict regard to convenience and neatness, and great pains are taken to retain the best possible flavor. Mr. Pelton contracts for his cheese directly with shippers, and it is stated that "no one who has dealt in his cheese has lost on it," although country merchants in Ohio generally complain of losing money by their operations in this article. The last season, Mr. P. contracted for all the cheese he could make, not to exceed three hundred tons, but in consequence of the drought he does not expect to exceed two hundred tons.

The writer of the article which we have thus condensed, believes that these two hundred dairy-men would realize less money from the sale of their cheese if manufactured at home, than they now do from the sale of the curd; thus making a clear saving of the labor and care of manufacturing, preserving and selling them—a saving which no dairy-woman will call a trifle. The reason for this belief is, that if manufactured in these various households, there would be not only two hundred different sizes and shapes of cheese, but as many qualities, which, when carried to market, a few at a time, would be sold for less money than Mr. Pelton pays for the curd.

Of itself, this Ohio speculation may be a small affair; but, as suggesting the possibility of applying to agriculture those principles of combination, of labor-saving machinery, and of the division of labor, which have done so much for manufactures, we regard Mr. Pelton's cheese factory as one of those signs of the times that deserve a passing notice and a passing thought.

**LAND MEASURE.**—Every farmer should have a good measure, a light stiff pole, just sixteen and a half feet long, for measuring land. By a little practice he can learn to step a rod in five steps, which will answer very well for ordinary farm work. Ascertain the number of rods in width and



length of a lot you want to measure, and multiply one into the other, and divide by one hundred and sixty, and you have the number of acres, as one hundred and sixty square rods make a square acre. If you wish to lay off an acre square, measure thirteen rods on each side, and you have the thing very near.

#### SOUTHERN AND NORTHERN CORN-FIELDS.

A correspondent of the *Scientific American* writing from Kentucky communicates the following, which may interest our agricultural friends:

"It is a curious fact that the Yankees, with all their ingenuity, have never learned to plow a straight furrow, while every negro in the South will lay off a field, however large, without having a bend of a foot in a single row. The furrows are not only straight but parallel, the last one in a field a quarter of a mile square, always coming out parallel with the fence. A Virginia farmer, 60 years of age, told me that he never had a short row in one of his cornfields in his life. In the new States, whenever you see crooked rows you may know you are among people from New York, New England and Ohio, and whenever the rows are straight, you will find that it is a settlement of Southerners. This accuracy is owing to the method of laying off the ground. If it is desired to have the rows three and a half feet apart, two stakes are cut, each seven feet long, one for each edge of the field. One of these is set perpendicularly seven feet from the end of the field, and the plowman, proceeding to the opposite edge, makes a mark there also, seven feet from the end, and runs his furrow straight to the standing stake, operating in a direction to keep the unfurrowed portion of the field at his right hand. Returning, he spits the seven feet strip with a furrow, thus hawing round—or, as the Southerners say, 'turning haw'—at both edges of the field. The failure of Northerners to learn this simple art is mainly owing to the inveterate conservatism characteristic of farmers—their fondness for walking in the paths of their fathers—but it is also partly to be attributed to their mode of guiding their horses. I think that for driving a team attached to a wagon, the two or four reins used at the North are preferable to the plan of riding the near-wheel horse and guiding the team by a single line on the near leader, which is in universal use at the South. But for plowing, the single line is decidedly better than anything else that I have ever seen."

**CREDIT.**—The *Cheshire Republican*, published at Keene, N. H., will undoubtedly feel happier by crediting us with the article in its issue of July '19, entitled "A Few Words about Haying." We like to see our children going about the world doing good, but always with the badge of their paternity upon them. We lay no claim to the article entitled "*How to Mow*," hitched on to the breeches of our own bantling!

To remove mildew from linen or cotton goods, dip the articles in soft soap, and spread them in the sun, on the grass.

*For the New England Farmer.*

#### LETTER FROM THE SANDWICH ISLANDS.

MESSRS. EDITORS:—From Kilanea we pushed on for Kau the next station. We rode along near the sulphur banks, down the west side of the crater, past the burning lake which we visited yesterday, and for nearly twenty miles travelled through a country blighted with the overflowing scourge of lava which has destroyed at least seven-tenths of this noble island. We then found a better country, and staid over night at the house of Frederick Lyman, a worthy son of Rev. D. B. Lyman, of Hilo. Mr. Lyman has one of the best places I saw on Hawaii, a grazing farm of some two thousand acres in the district of Kau. The next day we rode through the district, passing the wheat fields of the last year. Some two thousand bushels were here gathered. Of this I may speak again, ere I am through.

In 1829 I passed through this district. Everything was then primitive Hawaiian, and little improvement. Now, Christian civilization exhibits its fruits in meeting-houses, school-houses, and in better habitations than formerly; in roads; in increased industry; wheat raising, cattle raising, better clothing, &c. Kau, however, is a hard district, exceeding stony as a whole, and fit chiefly for pasturage. Goats are being raised in great numbers, chiefly for their hides and tallow, and pulu from the fern is plenty in the mountains, and is becoming an article of commerce. Rev. W. C. Shipman is the pastor of the church.

From Kau we pushed on for Kona. We rode some thirty-five miles the first day over an exceedingly rough country. All lava, and nearly all the aa or clinkers, small lava stones. Near night we reached the sea and took a canoe. The sea was smooth and the mountain breeze took us on delightfully, so that at dawn of day we had entered Kealakeakua Bay, and we landed and rode to the residence of Rev. John D. Paris, at Orange Hill, South Kona. His people, Hawaiians, are mostly at the sea, the bay where we landed, and at the coast which we passed during the night in the canoe. His principal meeting-house is at Kealakeakua, near the place where Opukahaia, (Obookiah, as written in English,) used to live. With Mr. Paris we visited Honaunau, the ancient place of burial of kings, and a large ancient city of refuge. Mr. Paris' residence is about two miles from Kealakeakua, and only one mile from Kaawaloa, where Cook fell in 1779. This spot we visited, as also his monument, which, at a cost of some two or three dollars, perhaps, not more, his brave countrymen have erected to his memory.

We found quite a number of foreign residents on Orange Hill, the place of Mr. J. D. Paris. From his house there is a very good road for six or eight miles. The land on each side of this road is owned by foreigners, and every half mile you see a very decent framed or stone house built by a foreigner. These men are cultivating their land, raising coffee, oranges and other things. Till lately the prospect was flattering that the coffee crop would be large, but much of this year's crop has been destroyed by an insect which causes both the orange and coffee to blight. There is a strip of land, including this Orange Hill, which may become some of the most valuable on Ha-



waii. It may be, (it has not been measured,) forty miles long, and from three to five broad. It has been overflowed with lava, and is now very stony; but so much of it has been decomposed that there is a rich soil. It cannot be plowed, but fruit trees grow luxuriantly, and native produce and corn and beans do well. If the place is preserved from the fires of Pele, we shall hear from South Kona again ere long.

Wishing to see one more exhibition of Pele's doings, we rode to Kiholo, thirty miles from Mr. Paris'. As we left the settlement of Kona, the roads became exceedingly bad where they were not covered with grass spread over the lava stones, and trodden down. The last six or eight miles, the road lay through fields of lava horrible to behold. Now, for a mile or two, we pass through a region which was overflowed, I judge, one hundred and fifty years ago. It is a perfect wilderness of lava grown grey with age, decomposing on the upper side, but judging from old fissures it must be from ten to fifteen feet deep. Again we enter another belt of a mile or two of a more recent age, but ancient and wilder, if possible, than the last. Not an inch of ground, not a spoonful of dirt, is seen over all these horrid fields. And so for miles, we found belt after belt, each of different age, till we reached Kiholo, and stood upon the lava caused by the eruption of 1859, still smoking, sending up steam and vapor. We walked over what had been a fine fish-pond filled with mullet; now nothing but a huge pile of lava slabs. A little further, and we came upon the lava stream now running on a level, and now rushing down a fall of a foot or two. Approaching one of the streams, I thrust my stick into it, and drew out some of the matter for a specimen. The matter was of the consistency of thick tar, more adhesive perhaps. This Kiholo is about three miles from Wainanali, the fishing village where the molten river just reached the ocean, Jan. 31st, 1859. It has been piling up its matter as it has cooled, till it has reached the place where we saw it. In the evening we took canoe and were rowed a mile and a half to a place where the stream leaps into the Pacific. The wind was light and southerly, driving the steam and gases from us. Our canoe approached to within sixty feet where we sat and drank in the grandeur of the scene. There were three streams rushing down a precipice of some twenty-five feet high. We judged that one of these streams was two fathoms wide, the others one fathom each. At times the flow into the sea was regular and the commotion of the water and the ascent of the steam constant. Again, the lava, just at the place of falling into the water, became obstructed, a large mass collected, till the stream above pressing hard, the pile became detached, and tons perhaps fell in at once. At such times, the boiling, roaring, foaming of the maddened waters was terrible, while the clouds of steam which ascended upward reflecting the light from the burning river added greatly to the grandeur and terror of the scene; I retired from this exhibition, quite satisfied with what I had witnessed of Pele's doings—grateful, too, I hope, that no such burning, desolating river is seen at present on Maui. Well may you, too, be grateful that no such destroying element is eating your fair and fruitful fields.

Let me now tell you of our wheat crop in 1859,

and of our troubles from another source. We had our usual troubles with the cut-worm and the caterpillar. These being ended, the wheat did well, was harvested and threshed, crop abundant,—grain good. The wheat was taken down to our little harbor, and sold till 20,000 bushels had been taken to the mill of Honolulu, and a considerable quantity stored at the sea. Just then the flouring company sent peremptory orders to their agent to cease purchasing wheat. And thus some 5000 bushels remain on our hands. It has caused much suffering among my people, and there seems no little cause of complaint as the company have all along urged the farmers to put in the wheat, and did not suggest any limits to the quantity to be raised. Considerable of this surplus wheat has been sold for fifty cents per bushel. We need more competition in the sale of flour, and I trust that by another year there will be another flouring mill, so that bread will be cheaper. For a time I thought there would be less wheat sown another year, but as there is so much on hand, I now think the quantity will be as great as last year. Some think even greater.

There is much complaint, just now, of the hard times. The poor success of whalers for the last year or two, is one cause, I suppose. One of our wheat growers, a man from Georgia, U. S., was basely murdered on the night of January 1, of this year. He was an intelligent and industrious man. The murderers have not been convicted, though three young Hawaiians are under arrest for trial. We have had a very dry season, and our fields are still suffering.

Yours, with much respect, J. S. GREEN.  
*Makawao, Maui, January, 1860.*

#### HOW MUCH HAY FOR THE HORSE?

This is a question which we have seen proposed in some of the journals of the day. If put in a general manner, you might, with as much propriety, ask how much *horse* for the hay? The quantity of hay for the horse must depend on many contingencies—such as the size of the horse, the proportion of oats or other provender which he receives, his general health, &c. &c.

A Wisconsin man has sent a communication to the *Wisconsin Farmer*, on this subject. He says he has had experience in keeping horses, and tried careful experiments in regard to feeding them. He thinks that on an average *five* pounds at a time, and three feeds per day, with twelve quarts of oats per day, or their equivalent in shorts, is enough for a good sized horse. He considers "*a good sized horse*" one that will weigh 1150 lbs. He recommends cut feed as being vastly preferable to any mode of feeding horses. He also contends that horses so fed have no *cough* or *heaves*, which he believes to be inseparable from feeding with clover or dusty hay, unless it be cut and well dampened.

Those who have tried the method, say that a feed of carrots, say a peck once per day, to horses, will be better than large allowances of oats, or, in other words, a few carrots will be better to take the place of part of the oats usually given. The reason assigned for this is the following: Carrots contain an ingredient called *Pectic acid*, which acid is a great aid to the gastric juices in digest-

ing the food of the horse. When this is supplied in the case of feeding with carrots, both the hay the horse eats and the provender is more easily and more thoroughly digested.

We all know that horses that labor hard, whether in slow or quick draft, must have more concentrated feed than hay, in order to keep up their strength and animation. Still it will not do to feed them wholly on concentrated feed. Their stomachs and digestive organs were made to receive and digest bulky food, like that of grass, hay, straw and the like, and they cannot do without it. In order, therefore, to insure the best of health, they must have fibrous or bulky matter to give that distension to their stomachs their nature requires, and this, as a matter of course, must depend upon the size of the horse, or on the size of the stomach and digestive organs. Hence a strictly definite answer to the question, how much hay for a horse? must be answered by each individual horse for himself.—*Maine Farmer*.

#### CUTTING AND CURING GRAIN.

Experiments have pretty well settled the fact that wheat should be cut while the grain is in the state called *doughy*. The conclusion was, indeed, reached several years since in regard to wheat, but it has, by the experiments of Voelcker, been clearly shown to be applicable to oats; and it is also known to be equally applicable to Indian corn. At first, it was feared by some that there would be a great shrinkage of the grain cut in this stage, which would amount to absolute loss. It is proved, however, that the sap of the stems of straw is sufficient to perfect the grain, and that the grain, under such circumstances even possesses some valuable properties which it has not when it remains uncut till dead ripe.

Mr. Colman states that he found by many inquiries in England that the "best rule for harvesting is not when the stalk below the head has changed color, and the circulations have consequently ceased, but when the grain, though it has ceased to yield any milk upon pressure, is yet soft." The advantages of cutting at this stage are briefly given as follows: "Wheat cut early affords more grain, yields less bran, makes better flour, wastes less in gleaning, gives better straw, and enables the farmer to do the work more leisurely."

C. W. Johnson, in the *Farmer's Encyclopædia*, observes—"Grain, if not reaped until the straw is wholly yellow, will be more than ripe, as the ear, generally, except in the late seasons, ripens before the entire of the straw, and it is observable that the first reaped usually affords the heaviest and fairest sample. The indications of ripeness in wheat are few and simple. When the straw exhibits a bright golden color, from the bottom of the stem nearly to the ear, or when the ear begins to bend gently, the grain may be cut. But as the whole crop will not be equally ripe at the same time, if, on walking through the field and selecting the greenest heads, the kernels can be separated from the chaff when rubbed through the hands, it is a sure sign that the grain is then out of its milky state, and may be reaped with safety; for although the straw may be green to some distance downwards from the ear, yet if it be quite yellow from the bottom upwards, the grain

then wants no further nourishment from the earth, and if properly harvested will not shrink. These tokens will be found to sufficiently indicate the ripeness of wheat, barley and oats; but that of rye arises from the straw losing some of its golden hue, and becoming paler."

Some of the most valuable experiments which have been reported on this subject, are those of Mr. Hannam, in the 12th and 13th volumes of the *Quarterly Journal of Agriculture*. The trials were made under his own direction, and with great care. He cut samples of wheat at five different times, as follows:

No. 1,	was cut a month before fully ripe.
" 2,	" three weeks " "
" 3,	" two weeks " "
" 4,	" two days " "
" 5,	" when fully ripe.

Of these lots, 100 pounds of grain of each yielded as follows:

No.	Flour.	Seconds.	Bran.
1.....	75 pounds.....	7 pounds.....	17 pounds.
2.....	78 ".....	7 ".....	16 "
3.....	80 ".....	5 ".....	13 "
4.....	77 ".....	7 ".....	14 "
5.....	72 ".....	11 ".....	15 "

Thus it appears that No. 3, which was cut two weeks before it was fully ripe, was superior to the other lots; giving more per bushel than No. 5, (cut when fully ripe,) by 6½ pounds of flour, and a gain of about fifteen per cent. on the flour of equal measure of grain; 100 pounds of wheat of No. 3, makes 80 pounds of flour, while 100 pounds of No. 5, yields 72—showing an average of eight per cent. in favor of No. 3. In grinding, it was found that No. 5 ground the worst—worse than No. 1. There were in No. 5 a greater quantity of flinty particles which would not pass the bolt, than in any of the other lots. The bran from No. 5 was also much thicker and heavier than that of No. 3.

Mr. Hannam concludes, therefore, that in cutting wheat two weeks before it is fully ripe, there is a gain of fifteen per cent. of flour upon equal measures, a gain of fourteen per cent. in the weight of straw, and a gain of 7s. 6d. sterling in the value of every quarter (560 lbs.) of wheat. Many trials have been made in this country in cutting wheat at various stages, and the results agree, generally, with those above given.

But when grain is cut before it is ripe, it is necessary that it should undergo a process of curing, before it can be safely stored in the barn or stack. Hence it is usual to place the sheaves in shock for several days, according to the state of weather, or the degree of moisture in the straw. But it sometimes happens that loss is occasioned, more or less, by the sprouting of the grain while it stands in shock—especially in warm, showery, or damp weather. To guard, as well as possible, against loss from this cause, the shocks should be put up in the best manner.—*Albany Cultivator*.

UNITED STATES AGRICULTURAL SOCIETY.—The annual exhibition of this Society will be held at Cincinnati, commencing Sept. 12, and continuing to the 20th. The premium list amounts to \$20,000. No cattle will be received on account of the pleuro-pneumonia disease, but large premiums will be offered for horses, machinery, steam fire-engines, &c.

### AGRICULTURAL SOCIETY.

Through the kindness of Dr. O. W. TRUE, we have before us a nicely printed pamphlet of fifty-two pages, giving an account of the transactions of the *North Franklin Agricultural Society* in Maine, for the year 1859. It also contains a brief history of the Society, from its beginning in 1852, giving the names of the persons who have delivered the Annual addresses, and of those persons who have been elected as members of the State Board of Agriculture. The pamphlet is also illustrated with good specimens of cattle, sheep and swine. The address last year was given by ANDREW C. PHILLIPS, Esq., and is an excellent production, full of sound teachings and interesting and important facts. After speaking of the fertility of the soil of the county, of the clear mountain air, of the rich intervalles and crystal waters, of the lakes studded with islands, and of the waterfalls and forests about them, he says:

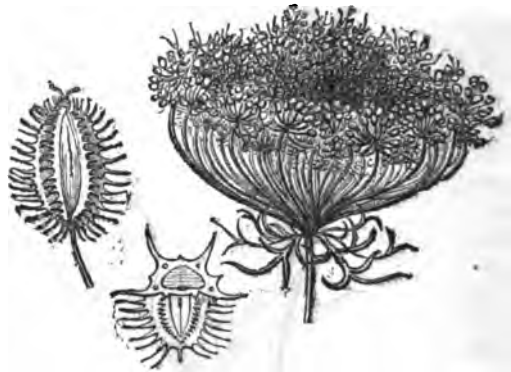
"With all this, are you discontented—your thoughts wandering to some distant State or Territory, and your imagination captivated with visions of rich prairie lands in the West? Consider, first of all, the probable or even possible loss of health from the change, for which no worldly gain is an equivalent. Don't forget the shady side of the picture—that distance lends enchantment.—Contrast your present comfortable homes, with their commodious arrangements, with a diminutive log house, its walls plastered with mud, with its stick chimney, its solitary room answering the manifold purpose of cook-room, sleeping-room, sitting-room and parlor, with a multitude of swine standing guard at the front door, grunting for admission, and improving every opportunity to effect it. Would you, who have been accustomed to have your cattle comfortably housed in the winter, enjoy seeing them, without a roof to protect them, stand shivering beside a hay-stack, vainly endeavoring to shield themselves from those cold, piercing, biting winds, that, unobstructed by forests, or a single elevation of land, blow over the western prairies? Call your children about you, and look upon their young faces, now radiant with the glow of health, and think if it would be a pleasing sight to mark those cheeks grow pale, those lips livid and those eyes hollow, under the effects of impure water and miasmatic air. Don't forget your social privileges, your neighbors, some of them perhaps your own kindred, all at least Americans. Don't forget your churches and schools—all your present means of intellectual and moral culture. Lastly, don't forget—for the dollar is, after all, the grand consideration—don't forget, when you compare the amount of products, to compare prices and facilities of market, and the cost of what you are obliged to purchase."

**THE TEA PLANT.**—The progress of acclimatizing the tea plant, so far as heard from, is favorable, and there is reason to believe that it can be

grown in the open air south of the northern line of North Carolina and Tennessee. Eighteen thousand plants have been sent into the Southern region, and eight thousand more have been distributed to persons in the Northern States, owning green-houses, as objects of curiosity.

### THE WILD CARROT.

This is a variety of the common carrot, cultivated in the fields and gardens, and a poor thing it is; much like the boy, neglected, crowded down



and abused; he is a boy to be sure, but a dreadful poor specimen of the genus. The wild variety is extensively naturalized in New England, and threatens to become a troublesome pest on our farms. We have seen it growing on gravelly road-sides, and even extending itself into the hard, beaten track, much as the neglected boy pushes his vices into the proprieties of life.

When this plant makes its appearance on the premises of the careless farmer, it soon multiplies so as to become a source of annoyance to the whole neighborhood. It should be carefully destroyed before it matures its seeds. Darlington's pleasant book on Weeds and Useful Plants will give the reader a more full account of this, and the ox-eye daisy.

**A VALUABLE TABLE.**—The following table, which will be found valuable to many of our readers, we republish at the request of a friend:

A box 24 inches by 16 inches square and 28 inches deep, will contain a barrel—5 bushels.

A box 24 inches by 16 inches square and 12 inches deep will contain half a barrel.

A box 26 inches by 15.8 inches square and 8 inches deep will contain 1 bushel.

A box 12 inches by 11.2 inches square and 8 inches deep will contain 1 peck.

A box 8 inches by 8 inches square and 4.2 inches deep will contain 1 gallon.

A box 4 inches by 8 inches square and 4.8 inches deep will contain a half-gallon.

A box 4 inches by 4 inches square and 4.1 inches deep will contain 1 quart.



THE OX-EYE DAISY.—*LEUCANTHEMUM.*

This plant is well known all over New England by the name of *White-Weed*. It has become common on many farms, so that the fields present a surface of white as though covered with snow. It is not considered valuable for fodder, either in a green or dry state, for even when feed is short in the pastures, the daisy stands untouched by the cattle, giving evidence that it is not palatable to them. It is a strong grower, and unless checked, will drive out most of the grasses we cultivate. It propagates itself rapidly, so that when it once has possession of a field, nothing short of plowing and cultivating a succession of crops will eradicate it.

Whenever it first appears in the fields, the farmer will do well to pull out every plant. In this way a few moments' labor each year will keep his premises free from the invasions of this showy, but as at present understood, worthless plant.

**INDICATIONS OF THE APPROACH OF THE MILLENNIUM!**—It would be strange, indeed, if there were not one sensible man in the world who is rich. That there *has been* one, is certain from the account of a *remarkable will* appended below. How strange it is that, in all the millions that have been bequeathed, scarcely a dollar, with very rare exceptions, has been appropriated to the encouragement of agricultural pursuits, or to teach

the young the principles and practices of this important art!

It is quite certain, that the "good time" we have read and heard of so long, is at hand, it must be the foreshadowing of the millennium itself, an "era of good feeling," when *three hundred thousand dollars* are bequeathed by a single individual, "for the education in agriculture of indigent white children," in the city of New York. That man shall have an enduring monument in the hearts of our people, whether he has one of brass or not. But we must not keep the reader too long from the account of this

**REMARKABLE WILL.**—The will of Mr. John Rose, a retired merchant of New York, whose decease was announced some weeks ago, made a conditional bequest of \$300,000 to the city of New York, for the education in agriculture of indigent white children. The condition is that a corresponding sum should be appropriated by the city, or raised by charitable contributions, for the purchase and support of a farm in the neighborhood of New York, to be devoted to the education and training to agricultural pursuits of pauper children. If this purpose be not carried out, the \$300,000 goes to the American Colonization Society, for the deportation and support of free blacks in Liberia. The decedent was a bachelor, and a bachelor brother of large wealth is constituted his sole executor, with the remainder of his estate, about \$550,000, placed in his charge for benevolent and charitable institutions. The only personal bequests are a gift of \$20,000 to his executor, and \$12,000 to another brother, now advanced in years. The whole value of the estate, principally in productive stocks, is reckoned at \$880,000. The foundation of this large wealth was laid in one of the Southern cities.

*For the New England Farmer.*

#### THE COUNTRY FOR THE CHILDREN.

**MESSRS. EDITORS:**—I have been often tempted to write a few words for your highly prized paper, but have never found time, from the same cause that a farmer's wife complains of in the number of June 30, which I have just read. There is more truth in her remarks than every man is aware of, whether he is a farmer or not. Hard work, and a plenty of it, is the order of the day with a stirring farmer. but not the order of the night, as is often the case with the wife, who has but one pair of hands to do with, and one head to think what is to be done in the daily round of every day business. Still, I would not have my boys or girls brought up any where else for all the ease and luxury that any Boston lady enjoys; and why? you may ask. I will tell you. In the first place, it is much better for their health on a farm, and less trouble in finding something to keep them out of idleness, which is the parent of mischief. What if they don't get so much book learning or so much genteel education as their city cousins; their minds are kept more pure, whilst they are forming acquaintance with the cattle, pigs, poultry, birds and flowers, helping father take care of the farm, and mother cook, wash, iron,

make and mend, and make butter and cheese, all of which they should be early taught to do with grace on the farm. I once heard an aged lady say that it requires the wisdom of Solomon, the patience of Job and the goodness of God, to bring up a family just as they should be. I will say to our farmer's wife in Warner, N. H., that she has the right grit, and if she has the health which she needs, will see better days when the children get large enough to help her, if she teaches them as well as she can, that she cannot always do every thing; and if her husband does not appreciate her worth as he ought, he will sometime, if he lives.

A FARMER'S WIFE.

#### WATER PIPES.

For several months past we have had frequent inquiries as to what is the best pipe for conducting water for farm and domestic purposes. Some of these letters, making particular inquiries, we have answered at the time, thinking that, when a favorable opportunity offered, we would give a more extended reply to the general questions stated. Considerable prejudice has always existed against metal pipes, from the fact that iron rusts, and lead is known to give in some cases a poisonous quality to the water, which, after constant use for a length of time, undermines the health, and lays the foundations of a painful and lingering disease. Other metals have found a sufficient objection in their cost. Iron pipes coated on the inside with glass have been introduced, but are quite expensive in themselves, and occasion increased expenses from the difficulty of laying them. Cement pipes, made by coating sheet iron or tin pipes on the inside with cement, are not expensive, and in many cases have proved to be all that was desired. Pipes of hydraulic cement, made by moulding the cement around a rod of iron or wood, and then withdrawing the rod before the hardening of the cement, have also been recommended, and in cases where not much pressure has to be resisted, answer every purpose. Within a comparatively few years the multifarious applications of India rubber and gutta percha to domestic purposes have suggested their use for conducting water, and both materials are now manufactured into pipes for that purpose.

Having thus stated the most important kinds of pipe, we shall now proceed to express our views concerning them, and the reasons we have for entertaining them. For aqueducts, when the supply of water is to be conveyed from a spring or stream, we know of no pipe we should prefer to wood. Wood seldom, if ever, taints the water which passes through it, is easily procured, and if properly laid will last for a longer time than iron. In the country the expense attending it would be small, compared to other materials which would have to be transported from a distance.

Logs for pipes should be used whole, the bore should be through the centre, or heart-wood, and in laying them, they should be placed at such a depth as to secure as uniform a temperature and state of moisture as is possible. This last is the great point to observe in laying wooden pipes. A depth of four feet in clayey or meadow land, and six feet, or even more, in sandy soil, is not more than is required to secure durability to the aqueduct, and if this is not observed the labor will have to be repeated at altogether too frequent intervals to be profitable. The old Jamaica pond aqueduct, which for many years supplied a portion of our city with water, and the one still in constant use, we believe, at Springfield, which was constructed by the late Charles Stearns, of that city, some twenty years ago, prove that when the conditions we have named are observed there is no material so valuable as wood for works of any size. Of course, for conveying water for the use of large cities, where millions of gallons are consumed daily, this material would be found entirely insufficient, and iron must be adopted. We intend our remarks to apply only to such works as are needed for single estates, or neighborhoods.

The objections to lead pipe are sustained by the evidence of our best chemists, and we should not make use of it where the water conveyed is to be used for drinking, or in the preparation of food.

The cement pipe made at Jersey City, N. J., has come into use to some extent. A correspondent of the *Farmer* writing from Middlefield, Ct., in 1856, says of this pipe, "I have the cement pipe, and see no reason why it should not last for centuries. It is made by coating the inside of a pipe made of sheet iron, or tin, with cement. This pipe is made in pieces of from six to ten feet in length, which are united when laid, and all is covered with cement two inches thick. If properly laid it is perfectly strong and tight at the joints, and will sustain a great amount of pressure." We have before us an unpublished letter of recent date, from another correspondent, who is an engineer, and has superintended the construction of works of this class, in which he says, "The towns of Plymouth and Pittsfield have extensive water works where the cement pipe is used with entire success, the water flowing through the pipes, which are from one-half an inch to twelve inches in diameter, as pure as if conveyed through solid stone."

But the principal demand for a pipe for conveying water seems to be for one that will be most profitable to use in short distances, and where not a large supply is needed; a pipe from an inch to an inch and a half, or two inches in diameter. For this purpose the new candidates

for public favor deserve a consideration. We are frequently asked whether India rubber or gutta percha will not give an unpleasant taste to the water conveyed through them. This may be the case for a few days or weeks, but we do not think it will continue for any length of time. These materials are both used to a great extent for purposes where metals have been found unsuitable, and we do not know that this objection has been proved against them. The natural elasticity of these substances is sufficient to allow them to expand and contract under the action of heat and cold, under almost any form of manufacture, so as to prevent all danger from bursting on account of freezing. Were we about laying a pipe for our own use, we should use one or the other of these materials.

The India rubber pipe made by the Boston Belting Company possesses several valuable qualities. A section of the pipe shows its construction to be as follows: Cloth heavily coated on both sides with rubber, is wound round some three or four times, and coated again on the inside and outside with pure rubber. This makes the thickness of the one inch pipe, about three-eighths of an inch, and having cloth for its basis, obviates all liability to flaws and weaknesses in its manufacture. It can be bent with ease into curves of small radius, making the labor of laying it upon uneven surfaces and around angles no more difficult than upon a level and straight course. The pipe seems to have nearly the same degree of elasticity in cold weather as in warm, so that there need be no resort to artificial heat when laying it in cold seasons. The gutta percha pipe possesses some of these qualities, but its sensitiveness to heat makes a great objection to its use. It also becomes very rigid under the action of severe cold, so that in our opinion there is danger of its being fractured at such times. It can never be safely exposed to the action of the sun or fire, and can never be used for conveying hot water. Its extreme lightness, and the ease with which it can be jointed when necessary, are much in its favor. Chemists have pronounced in favor of both these materials, as far as imparting any deleterious properties to the water is concerned, and both are worthy of trial from any one about laying a pipe for conveying water.

The cost of these two materials varies but little. The one inch rubber pipe costs twenty-four cents, the gutta percha twenty-five cents per foot, the former warranted to stand 200 pounds pressure to the inch, the latter tested to fifty pounds.

The cement pipe spoken of above, costs about twenty-five cents per foot for two inch pipe, when laid. But the pipe to be used,—wood, cement, India rubber, or gutta percha,—to secure the desired ends, and at the same time consult economy, must

depend somewhat upon circumstances. To secure entire satisfaction, the object to be gained should be first fully understood; and we believe that the material which will most fully supply the requirements of the case, whatever it may be, and whatever its first cost, will prove to be the most economical.

*For the New England Farmer.*

#### FIGURES, AND A FARM.

MR. EDITOR:—The problem of "P. J.," in the monthly *Farmer* for March, so far as the figures have to do with it, is not a difficult one to solve. But the question, "Will said farm ever be paid for, from the farm?" I will answer, by saying, if he has been able to meet his annual payments and annual interest promptly through the hard times that farmers have met from 1852 to 1860, a reference to the following figures, showing the amount of each yearly payment of principal and interest, will give him high hope of success.

	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
Principal,	\$200	100	100	100	100	160	100	100
Interest,		129	123	117	111	105	99	93
Total,	\$200	229	223	217	211	205	199	193
	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.
Principal,	\$100	100	100	100	100	100	100	100
Interest,		87	81	75	69	63	57	51
Total,	\$187	181	175	169	163	157	151	145
	1868.	1869.	1870.	1871.	1872.	1873.		
Principal,	\$100	100	100	100	100	160	2,350	
Interest,		89	83	27	21	15	9	1,449
Total,	\$139	133	127	121	115	159	8,799	

"P. J." will notice that he will have paid \$3,799, principal and interest, in 1873, \$1,449 of which is interest. April 1, 1860, he will have paid of principal \$1,000; interest, \$864.

I like the reply of Ed. Emerson to "C. L. W.," in relation to the  $9\frac{1}{2}$  acre farm, and he might have added among his other arguments against a small farm, that the expense of the family is the same on a small as on a large farm. Let me have plenty of "elbow room" to farm it profitably.

*Goshen, Vt., March, 1860.*

O. W. D.

#### APPLES FOR FEEDING.

For cattle, sweet apples are found to be an excellent substitute for roots—promoting both growth and health.

For swine, nothing equals an apple pie, either for relish, or for fattening power. The pig is not very dainty about his pie, however. If you merely cook the apples, and stir in a little bran, he won't refuse the dish; substitute shorts, or corn-and-cob-meal, or ground oats, or buckwheat, and it will suit his palate, and pile on the fat amazingly. And, for finishing up a piece of pork, an apple pudding, thickened with good corn-meal, is as far ahead of hard corn as the corn is of raw pumpkins.

Pork made with apples is sweeter, and quite as free from shrinking, as the "corn-fed."

But to the question—"Would it be profitable to raise sweet apples for feeding to cattle or swine?"

Altogether so—unless the apples will bring in market much more than they cost to feed the hu-

mans on! True, it takes time to start an orchard and bring it into bearing; but then the outlay is small, and the ground may be profitably used for other crops while the trees are growing. When once in bearing condition, what other crop will pay as well as apples? For swine, they may be made to save half the corn used in fattening pork. For cattle, they are worth nearly, or quite as much as roots. Plant out the apple trees; they must prove profitable.—*Genesee Farmer*.

#### LOSS OF THE CUD.

Literally, there can be no such thing as "loss of the cud." Ruminating animals are never furnished with an appendage so ridiculous as a cud, to be used as "gum," in the mouth of a school-boy, which if lost, must be supplied, with an artificial "cud;" as if the operations of nature must be suspended until this prepared artificial panacea is supplied, to take the place of the natural "cud lost."

By a slight investigation of anatomy and habits of ruminating animals, this very common delusion would be dispelled, and the slight understanding of the "cud," the causes of its "loss," and the means necessary to be used to restore it, would be more clearly understood.

By ruminants, or ruminating animals, we mean those having a complex stomach with four cavities so disposed as to allow of ruminating, or the act of at once laying in a large stock of food, slightly chewed, and afterward to return it to the mouth, and there more thoroughly masticate it, and fit it for digestion. Digestion is always preceded by this action in this order of mammals, and they are exclusively confined to a vegetable diet. Now if debility, loss of appetite, disease of the stomach and digestive organs, or sickness from any other cause ensue, this order of nature may for the time be suspended, and the animal have no need to perform the act of rumination. The ordinary operations of a healthy animal are not called into requisition. Hence, we hear of "loss of cud." The only "remedy" for this "loss" lies in restoring the animal to health, and if we know what is the disease, we can the more certainly apply the "remedy." But all the "made cuds" that ever entered into the *materia medica* of quackdom can never compensate for the folly and ignorance of applying one.

The stomach of ruminating animals is especially organized for the performance of its peculiar functions. It consists of four distinct cavities, all communicating with a muscular canal at the termination of the *oesophagus*. Coarsely masticated food passes from the beginning of the muscular canal into the first cavity, called the *rumen*, or paunch. Water is received into the second cavity, called the *reticulum*, and almost exclusively occupies the honey-comb cells of that cavity, and is gradually mixed with the coarsely divided food which is undergoing mastication in the *rumen*. When this is sufficiently advanced, a portion of the mass is raised into a muscular canal, is there moulded into a ball, and by a spasmodic action of the muscles of the gullet is forced into the mouth, where it is perfectly masticated at leisure, mixed with saliva, and again swallowed. It now passes directly into the third recess called the *psalterium*. Here the superfluous fluid is

absorbed, and the thoroughly subdivided mass passes gradually into the fourth recess, called the *abomasus*, where it is completely digested, and from which it passes off into the lesser intestines.

Ruminating is a most interesting process of nature, and it is a most pleasing study to observe and note in its manifold operations, and to witness the supreme satisfaction of a well-fed animal "ruminating," or elaborating by this wonderful provision of Providence,—the mastication of food by delugition, ejection and final swallowing—otherwise, "chewing the cud." When we become more thoroughly familiar with the beautiful economy of animated nature, and its most wonderful organization, we shall no more hear of the "loss of the cud," but will attribute the effects to their proper causes, and call things by their right names.—J. V. H. C., in *Gen. Farmer*.

#### THE IDYL OF A WESTERN WIFE.

BY ELIA FARMAN.

Straying here at dusk, I, a housewife merry,  
Lean upon the fence and listen through the gloom,  
Watch the sunset fade from yonder gleaming ferry,  
Harking with my heart for Joe's light whistle home.

\* \* \* \* \*  
All so quaintly built, brown and low our house is:  
Naught but simple-hearted honest folks are we,  
But we live content as our own moss-roses,  
Though the noisay world doth mind not Joe and me

Bustle king and queen of these rural riches;  
Humming hives of bees, and many flocks and herds,  
And a beautiful and fruitful orchard which is  
Full of sweet, sweet clover grass, and nests of birds.

By a silver, broad, lone and silent river,  
'Twixt the river and the mossy, dark-leaved sculptured wood,  
In our rustic house; and the wood fowl ever  
Crieth all day through this peaceful neighborhood.

By the summer's fair, greenest-kirtled fairies  
In the woodbine's flowering, dark-leaved sculpture laid  
In a cornice rare round our stoop; and there is  
Love's own arbor seat and moon-paved promenade.

O'er it do the tall, clambering morning-glories  
Spill at morn their dainty cups of perfumed dew;  
There walk Joe and I with our household stories—  
I and Joe, good farmer Joe, when day is through.

O, how happy we! through the summer evening walking,  
As the happy ones of ancient Arcady!  
O, how happy we!—rustic married lovers talking,  
Though the noisay world ne'er heard of Joe and me.

\* \* \* \* \*  
Straying here at dusk, I, a housewife merry,  
Lean upon the fence and listen through the gloom;  
Watch the sunset fade from yonder gleaming ferry,  
Harking with my heart for Joe's light whistle home.  
—N. Y. Evening Post.

OLD PEAS AND BEANS.—If you have any old peas or beans in your granaries, which have become mouldy, pour boiling water over them, and after drying them thoroughly, grind and give them to your swine. Treated in this manner, and especially peas, they constitute a most valuable and nutritious food for swine. But beans, unless cooked and mixed with other substances, are the most valuable for sheep.



### GRADUAL DIMINUTION OF RAINFALL IN ENGLAND AND SCOTLAND.

In the January number of the *Valley Farmer*, for 1859, we gave an article on the annual diminution of the fall of rain in the United States, the cause, and the probable effects upon the agricultural interests of the country, &c. In England, the annual fall of rain, in inches, is probably one-half less than it is in the United States, yet in England there are at least one-third more rainy days in a year than there are in the United States. But in the former country it only rains, while in this country it often pours. The causes that produce this effect in this country have been, comparatively, but a few years in operation, while in England and Scotland they have been for centuries. These changes are so marked, and the results so important, that the Scottish Meteorological Society offer a reward of £20 (\$100) for the best essay on the following questions: 1. Whether the amount of rainfall in the western part of Europe, and particularly in Scotland, is less now than it formerly was. 2. Assuming this fact to be established, what are the most probable causes of it? With reference to the first of these questions, the Secretary of the Society, A. Keath Johnson, says:

"Notice may be taken of the popular belief that springs of water have been gradually diminishing, or altogether drying up, especially in arable districts; and the following statement in the report of the Registrar General for England, for the quarter ending June, 1859: 'The deficiency in the fall of rain from the beginning of the year, is 1½ inch. The deficiency in the years 1854, 1855, 1856, 1857, 1859, amounting to the average fall of one year, viz., 25 inches. From a careful examination of the fall of rain (year by year) from the year 1815, it would seem that the annual fall is becoming smaller, and that there is but little probability that the large deficiency will be made up by excess in future years.' With reference to the second question, notice may be taken of the supposed effects of deep drainage, and deep culture of the soil, in raising the temperature both of soil and atmosphere, in lessening evaporation, and diminishing the condensation of vapor."

This is not only an interesting, but an important subject for investigation, and we hope that we may chance to meet with a copy of the prize essay when it is published, that we may compare the views with those we have expressed.

### NATIVE CATTLE.

We have a breed of cattle in the Northern States which pass under the appellation of "native cattle," but there appears to be a stock in Texas better entitled to the name. A Texas paper says:

"We are informed by those most familiar with the facts, that these cattle were of uniform color, as much so as buffaloes—a black brown, approaching black; short glossy hair, beautiful turned horns, large in size, with broad chest and bodies, well-rounded quarters, and generally exhibiting excellent forms for beef and draft. The half-breed fully sustains this description, and is not only a valuable work-ox, but, when fat, would

rank as a first class beef. One object in alluding to the subject, is to invite inquiry as to whether, if not too late, our common stock of cattle may not be improved by preserving this wild breed and crossing it. It is probable there are some still in this country in a domestic state. Another point of considerable interest, and one that we have on various occasions heard discussed without any satisfactory result, is, whence came this distinctive family of cattle, all of the same color and general exterior, which make them entirely different from the domestic stock of the United States, Mexico, and the Creoles of Louisiana, all of which are new to Texas."

### EXTRACTS AND REPLIES.

#### FARM MACHINERY.

A good many men, and boys too, will give a hearty amen to your prayer for blessings on the *Mann* who invented the "Vegetable Weeder," if it comes up, to the recommendation you seem disposed to give it. I hope it will be in the market before another season for weeding comes round. The "good time" seems to be coming for the farmer. Machines are almost daily brought to public notice intended to save the wear and tear of human muscle in farm labor. Mowers, reapers, ditch-diggers, rock-lifters, &c., are multiplying in all quarters, till there seems to be little hard work left to be accomplished by mere manual labor.

A friend at my side names a farmer of Grafton, who has imagined (though I do not think he has made any attempt to realize his imagination) a machine for milking cows, to be worked by the motion of the cow's tail. To the objection, that this could only be worked during the fly season, the same friend suggests the use of artificial flies! Here is a fine chance for mechanical genius.

J. DOOLITTLE.

#### VERMIN IN THE POULTRY HOUSE.

In reading your last number of the monthly *Farmer*, I noticed a piece about hen-lice; and thinking that I could give a little information in regard to the extermination of these troublesome vermin, I take the liberty to reply to Mr. Reed's article. Last fall, having moved a short distance from the city, and taking a fancy to hens, I purchased two hens and a rooster. Finding that by good treatment they can be made to pay, I have since increased my flock to thirty. Having a barrel of lime which I had no use for, I thought it might be a good idea to sprinkle a little on the floor of my coop to make it white and clean, but I have since found that it not only serves that purpose, but others. It purifies the atmosphere, keeps the coop white and clean, and last, but not least, I think I can safely say that it keeps the poultry-house free from all vermin, for since I have used it, I have not had any trouble with my hens in regard to lice or other vermin. In flying from the roosts or nests it gets in amongst their feathers, which keeps them healthy and in good condition.

A. P.

Westbrook, July, Ms., 1860.

#### FARMING OPERATIONS IN ESSEX COUNTY.

I have recently seen Manny's and the Buckeye Mowers most successfully operated on the farms of Messrs. Ware and Merrill. Mr. W. has finished the cutting of his grass with Manny's, and as he holds and drives himself, his opinion is worthy of confidence. While looking at his mowing, I glanced at his extended fields of onions—several acres of which have been replanted with carrots, by reason of the ravages of the worm at the bottom. Some of them were still found operating. He hopes for a good yield of carrots though planted since July came in. The crop of grass is not large the present season—the cold and drought of the spring operated against its starting well. Never have I witnessed a more vigorous growth upon trees of every variety, and never have I seen the fields covered with an aspect more luxuriant.

July 12, 1860.

## SUPERPHOSPHATE FOR TURNIPS.

About the first of July, last year, I plowed about an acre and a quarter of old mowing land; soil, a sandy loam on the higher part, good strong loam lower down the slope, and running to the edge of a peaty swamp. Spread on 400 pounds of Coe's superphosphate of lime, harrowed it well, sowed four varieties of turnips, about one-half in rows with a seed-sower, and the other half broadcast and harrowed in. The season was dry for several weeks afterwards, but the seed came up well. When the young turnips had very slowly put out about four leaves, the tips of the leaves began to blight and became dry and crisp, and so continued throughout the season. At harvesting, the whole crop was not worth half the cost of the superphosphate. All the varieties of the turnip, on all the varieties of soil showed the same appearance of blight. This was my first experience with superphosphate of lime as a fertilizer for turnips; and I leave you to decide whether this effect should be attributed to the superphosphate, to the dryness of the season, or to some other cause.

Concord, July 9, 1860.

MINOT PRATT.

## IS FARMING PROFITABLE?

If Mr. Pinkham is not satisfied that farming is profitable, I would commend to his attention the following facts. About ten years ago, a lady in this vicinity was left a widow in the occupancy of a farm incumbered with some \$1800 of debt. She has hired all the work on the place, and has, in the ten years, reduced the debt to \$300, besides educating two daughters to the ages of eleven and twenty-one, respectively, and bearing the extra expense of two severe sicknesses in her own person. As to repairs, improvements, &c., I only know that I have sold her several thousand feet of lumber in the last four years, for fences, new roofing barns, &c. She has sold some timber, but only enough to cover the expense of a family carriage, and a piano for the eldest daughter, which articles she has purchased in the meantime. If that farm has not afforded a profit, I hardly know what business has or can.

Arlington, Vt., July 9, 1860.

A. B. CONE.

## CROPS IN CONNECTICUT.

The last week in June was a hot sultry week with us. Since then the weather has been changeable, a few days hot and then cool again, with easterly winds. We had a fine rain on the 5th of July which will carry out the grass crop. As a general thing, grass is a fair crop in this section as far as I have seen, though old meadows will be light. Rye and oats look well on the ground, oats in particular. Corn and potatoes stand well at present. There is a prospect for a fair fruit crop. Apples look well on the trees. Cherries and strawberries have been good.

L. DURAND.

Derby, Ct., July, 1860.

## WATER PIPES.

I have seen several communications in the *Farmer* relating to pipes for conducting water, and I wish to inquire through the *Farmer* more fully. I wish to know the best kind where the water stands in the pipe one hundred feet and is drawn from thence by pump, and the price per foot for one-inch pipe? Also, if wood will not injuriously affect the water where it stands so long a distance in it? Any other information relative to the subject will be gratefully received.

DANIEL HILL, 2D.

Goodwin's Mills, York County, Me., 1860.

REMARKS.—See editorial remarks in another column.

## CURE FOR HOLDFAST IN CATTLE.

In reply to the inquiry of "N. Mathews, of Henniker, N. H.," for an article for the cure of what he terms "Holdfast," I think that oil of spike applied once or twice a day, for three days, and leave off the use of it for three days more, will cure in a short time. Oil of spike is composed of sulphuric acid 1650 sp. gr. and spirits of turpentine, equal quantities. Put an ounce of spirits of turpentine in a strong bottle and add sulphuric acid in small quantities till you have added an ounce.

Ripton, Vt., July 7, 1860.

## SOWING GRASS SEED.

I noticed in the monthly *Farmer* a piece written by O. L. Dow, on "Seeding grass land." In sowing the seed before plowing, I wish to inquire if he sows his grain at the same time he sows his grass seed? I have a piece I wish to sow with wheat and grass seed in the fall, and an answer to this question will much oblige me.

LUKE NEWELL.

Mason, July, 1860.

## OBTAINING THE VALUE OF HAY.

Seeing an article in the June number of the *Farmer* entitled "Value of a Load of Hay," reminds me of a more simple method which I have found very useful; viz: multiply the price per ton by five, and you will have the price per cwt. For example, suppose the price per ton to be \$15, multiply 15 by 5 and you have 75, which is the number of cents per cwt. Perhaps you have heard of this, but I have found many men who had not.

A SUBSCRIBER.

## COW SUCKS HERSELF.

Can you tell me the best way to prevent a cow from sucking herself? I have a good one that will occasionally do it, much to my loss and inconvenience.

Orange, Vt., 1860.

A SUBSCRIBER.

REMARKS.—A bow on the neck, with sharp pins in it, or a muzzle of leather above the nose, with picked iron pins, and fastened to the horns, will prevent this bad habit.

## TO CURE WENS ON CATTLE.

Soft soap made thick with salt, and rubbed on smartly, will cure wens on cattle, if done in time.

Brownsville, Vt., 1860.

HORACE SPALDING.

## A BIG CALF.

Mr. Eastis Baker, of West Dedham, owns a cow that dropped a calf on the 7th inst. weighing 126 lbs. Durham bull. Ayrshire cow.

## WHITE DORKING EGGS.

Can you inform me through the *Farmer* where eggs of the White Dorking fowls can be obtained, and at what price?

S. S.

Stoughton, July, 1860.

REMARKS.—Probably at some of the agricultural warehouses.

## VIEW OF OHIO AGRICULTURE.

The Annual Report of NORTON TOWNSEND, the President of the Ohio Board of Agriculture, to the Legislature of the State, is published in the *Ohio Cultivator*. In respect to the amount of staple agricultural products, he thinks the past year cannot be regarded as favorable. The spring gave promise of an abundant harvest, but severe frosts in the month of June blighted the prospect. Although the north-western part of the State nearly escaped this destructive visitation, the injury to the wheat crop in other sections was so great, that not less, probably, than one-fourth of what had promised to be an unusually good yield was destroyed, involving the loss of perhaps eight millions of bushels. The corn crop also suffered severely from the frost, but by prompt replanting, the crop may have been nearly up to the general average. Oats and barley have been better than usual. Potatoes much better than was anticipated in the early part of the season. The grass crop the past season was injured by the frost to

an extent never before known; in pastures the growth of grass was checked, but meadows were still more seriously injured. In some portions of the State where the frosts had been most destructive, they were followed by a drouth of long continuance, which was even more hurtful to the grass than the frosts had been; consequently the quantity of butter and cheese, and the number of fat cattle and sheep, furnished from those sections, were much less than usual. The anticipated scarcity of fodder compelled many farmers to sell young stock to be slaughtered, the loss of which will be felt for several years. This drouth served to demonstrate that only well drained and deeply tilled lands can be relied on in a dry season, for on such lands the herbage was often luxuriant and fresh, while old and untilled pastures were almost worthless. At no distant day arrangements will doubtless be made in Ohio for irrigation wherever it can readily be done. Draining tiles and mole plows were exhibited at many fairs, and the manufacture of tiles has been commenced in various parts of the State.

The President is gratified to report that farmers' clubs are becoming more common in various parts of the State, and that the standard agricultural works which have been placed in District school libraries by the State Superintendent, are extensively read and highly prized by the families into which they are received. He regrets the decrease of more than 30 per cent. in the number of sheep from 1854 to 1858, by the annual destruction of \$150,000 worth of this kind of property by dogs. The great expense of fencing out other peoples' animals should no longer be imposed on farmers.

#### OHIO GRAPE CULTURE.

Mr. R. Buchanan, of this city, who has been identified with grape culture since it was first attempted in Ohio, for wine-making purposes, says there are now about four thousand acres laid in Ohio, of which about half are in the immediate vicinity of Cincinnati. The yield last year is estimated at 350 gallons per acre, for the whole State, which is much above the usual average. From a careful estimate of the vintages for the twelve years, the average yield of the Ohio Valley is 200 gallons per acre; on well cultivated vineyards, in favorable positions, 300 gallons, which is about the average product in France and Germany. In Missouri and Illinois the yield did not exceed 200 per acre, owing to the prevalence of the rot, and in Tennessee, Georgia and South Carolina, it is very much reduced by a destructive frost in April. It is said that the amount as well as the quality of the various wines produced in the different States of the Union is steadily gaining. The business is as profitable as any branch of agriculture—perhaps more so at present prices—two or three dollars per gallon. The culture of the grape has become very extensive in this country. It is not confined to any section, but

seems to flourish alike in the West, the South and New England. It is anticipated that, with good weather, the Ohio vineyards will yield this year 1,600,000 gallons. There are also extensive vineyards in Missouri and other Western States, and in North and South Carolina, Georgia, Tennessee and Texas. The culture is also extending in Connecticut. Grape growers say this is to be a great wine year.—*Cincinnati Press*.

#### ORIGIN OF PLANTS.

Should the following record interest our readers as it has us, it will fully repay the space it occupies in our columns.

Madder came from the East.  
Celery originated in Germany.  
The chestnut came from Italy.  
The onion originated in Egypt.  
Tobacco is a native of Virginia.  
The nettle is a native of Europe.  
The citron is a native of Greece.  
The pine is a native of the East.  
Oats originated in North Africa.  
Rye came originally from Siberia.  
Parsley was first known in Sardinia.  
The pear and apple are from Europe.  
Spinach was first cultivated in Arabia.  
The sunflower was first brought from Peru.  
The mulberry tree originated in Persia.  
The gourd is probably an Eastern plant.  
The walnut and peach came from Persia.  
The horse-chestnut is a native of Thibet.  
The cucumber came from the East Indies.  
The quince came from the island of Crete.  
The radish is a native of China and Japan.  
Peas are supposed to be of Egyptian origin.  
The garden beans come from the East Indies.  
The garden cress is from Egypt and the East.  
Horseradish came from the south of Europe.  
Zealand flax shows its origin by its name.  
The coriander grows wild near the Mediterranean.

The Jerusalem artichoke is a Brazilian product.  
Hemp is a native of Persia and the East Indies.  
The cranberry is a native of Europe and America.  
The parsnip is supposed to have been a native of Arabia.

The potato is a well known native of Peru and Mexico.

The currant and gooseberry came from Southern Europe.

Rape seed and cabbage grow wild in Sicily and Naples.

Buckwheat came originally from Siberia and Tartary.

Barley was first found in the mountains of Himalaya.

Millet was first known in India and Abyssinia. Writers of undeniable respectability state that the cereals and others of these edible productions grow spontaneously in that portion of Tartary east of the Bela Tagh and north of the Himalaya mountains.—*Porter's Spirit*.

WHEN Sheridan was asked at an amateur play which performer he liked best, he replied, "The prompter; for I saw less and heard more of him than of any one else!"

## EXTRACTS AND REPLIES.

## DROUGHT IN VERMONT.

We are literally consumed by drought and grass-hoppers; every crop on our little farm has failed, and the cattle are crying for food and drink.

Middlebury, Vt., July, 1860.

E. E. HAGAR.

REMARKS.—While we are drenched with daily showers, and our crops are plethoric with fatness, our friends in portions of Vermont are suffering sadly for the want of rains. The earth is parched and the crops are withering and drying up, while thousands of grass-hoppers devour the little that is left. A gentleman from Addison county informs us that year before last he cut and secured one hundred tons of hay; last year he secured about thirty tons, but this year his whole hay crop will not reach one-third of that of last year.

We learn, also, that the drought is so severe in some parts of the State of Maine that but little grass, comparatively, will be cut.

The crop in all parts of Massachusetts, we believe, is abundant, and under the improved method of making hay under caps, will be secured in good order, notwithstanding the great amount of rain.

## SWAMP LAND

I have purchased a piece of swamp land, and wish to know which is the best way to get it into grass? It has muck varying from one to four feet deep, with a white sand or gravel pan. There are bunches scattered over the surface where the wood grew, and they are of all sizes and shapes. The swamp is easily drained by a small brook or ditch.

South Weymouth, July, 1860.

N. B. DEEBY.

REMARKS.—The first operation in reclaiming a meadow should be to drain it so as to get the water out of the way and leave the surface in a condition to be trodden upon both by cattle and men. Care must be taken, however, not to drain too much—for if the water is taken entirely away from a loose, highly porous meadow, it will become so dry that seeds will not sprout in it, and if fire is applied in a dry time the whole meadow will burn about as freely as a pile of dry wood. Reduce the water so that it will stand from twelve to twenty inches below the surface, according to the nature of the land.

When the water is off, you cannot only work more comfortably, but more rapidly than while the water stands about you, or if the meadow is wet and becoming muddy wherever you are at work; the roots and rubbish which are collected will also dry better and burn more thoroughly.

Plowing is the most effectual mode of reclaiming, and in the end the most economical, unless the meadow is difficult of access, or is too soft to support the team. If only too soft, the plowing may be done by the use of pulleys, keeping the cattle all the time on the hard land, if the border of the meadow is pretty level and not covered with trees. If you cannot plow, use the bog hoe. Cut off the bunches and burn them, and break the surface as well as you can.

When the surface has been broken, haul or wheel from some neighboring bank near by fifteen or twenty ox-cart loads of sand or fine gravel per acre and spread evenly; then add whatever fine manure you can spare, sow the grass seed and rake it in.

If the meadow is plowed and is sufficiently dry to receive a crop, nothing will ameliorate it more than to plant potatoes and tend them well. After that operation the ground may be laid to grass with ease, and will produce great crops.

## CATTLE DISEASE.

In the July number of the *Farmer*, in speaking of the cattle disease, you say on the farm of Andrew Wellington you saw a cow which exhibited strong symptoms of the pleuro-pneumonia. That cow has since been killed, and upon examination proved to be entirely free from that disease. There was an adhesion of the apex of the heart to the pericardium or heart case, which caused the rapid breathing which you noticed. There was another cow killed at the same time, which also proved to be free from the disease, and the commissioners decided that there was no disease in the barn.

Please make this correction, and greatly oblige

ANDREW WELLINGTON.

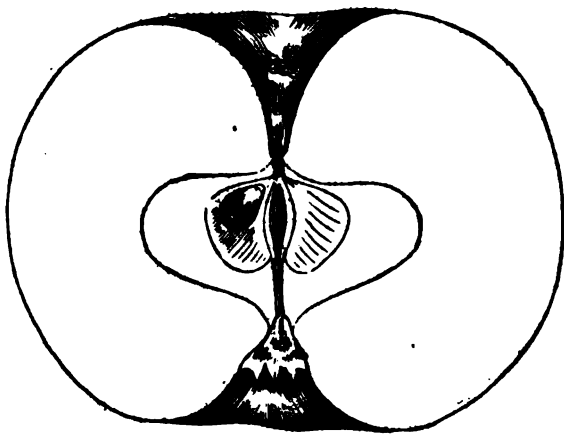
East Lexington, July 25, 1860.

## WESTERN APPLES.

The outlines which we present to-day are probably those of Western apples. Whether they have been cultivated east of the State of Ohio, we do not know. We copy them from *Elliot's Fruit Book*, as worthy of introduction to our present list of fruits.

## BETHLEHEMITE.

This is a variety somewhat resembling the Newton Spitzenberg, and we have testimony of one or two who say they know it under that name. We are not, however, satisfied of their identity,



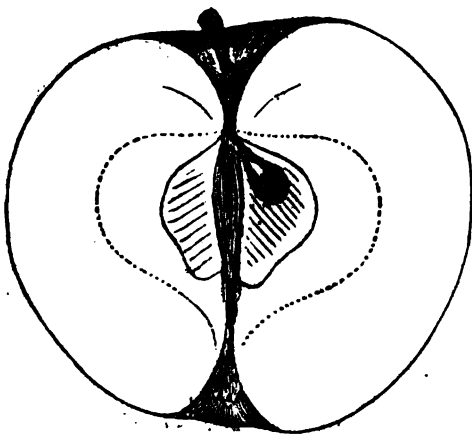
and as the really good qualities of this fruit are such as to make it desirable in all collections, we have no hesitation in recommending it. Thus far all specimens we have seen were from trees grown in rich, loamy soils, and all we can learn of its history is that it came from Bethlehem, in Ohio. Size, medium; form, roundish, flattened, tapering slightly to the apex; color, pale yellow ground, striped and stained with two shades of bright red, dotted with irregular shaped brown dots, some russet about the stem; calyx, medium sometimes large; basin, deep, broad, irregular, somewhat furrowed; stem, short; cavity, narrow, irregular; flesh, yellowish white, tender, with a

mild sub-acid. juice, and exceedingly pleasant flavor; core, small, compact; seeds, obovate, obtuse pyriform. Season, November to January, but keeps until April. Trees, upright, strong growers.

#### BULLOCK'S PIPPIN.

American Golden Russet, Sheepnose,	Golden Russet, Little Pearmain,
Full Winesap, erroneously.	

American. Tree, ultimately of only medium size, with a round, regular head, shoots erect, rather



er slender, admirably suited to rich soils of Southern Ohio, Indiana, etc. Grown south, the fruit is almost entirely covered with russet; north, and on sandy soils, it is a warm, rich yellow, with only marblings of russet. Size, small to medium; form, roundish, ovate, tapering much toward the eye; color, generally rich golden yellow, overspread with soft russet, and in sun a marbling of red; stem, slender; cavity, narrow, regular; calyx, small, closed; basin, shallow, sometimes furrowed; flesh, yellowish, tender, juicy, almost buttery, delicate, sprightly; core large for size of fruit; seeds, full, ovate, pyramidal. Season, December to March.

#### FOOT-ROT IN SHEEP.

A correspondent of the *New York Rural*, after detailing his efforts to eradicate this disease by paring the hoofs and applying an ointment of lard and blue vitriol, by which only temporary benefit was secured, and alluding to the hard work of doctoring for months several hundreds of sheep in this way,—made disagreeable beyond measure by the offensive odor of decaying hoofs and the disgusting sight of crawling vermin, gives the following account of the course he pursued with his flock:

"At last it was decided that to eradicate the disease from the flock was the next thing to an impossibility, and that it was best to sell out. To get the sheep in condition for profitable sale was the next step, and having become heartily sick of

handling and paring, I devised an easier method of keeping the malady sufficiently at bay to allow the sheep opportunity to get in suitable order for the market. I first made an inclosure on a dry, clean grass plot, and an aperture therefrom just wide enough to admit the egress of the flock, single file. Then I placed in this opening, on the ground, a water-tight box or trough of same width and three or four feet long, so protected on the sides and above as to force the sheep to step into the box. Then, in dry weather, when the hoofs of the animals were clean, a weak solution of vitriol was put in the box to the depth of two or three inches, and the sheep were turned into the yard and made to pass through. In this way, without touching a sheep, or without severe labor of any kind, a flock of considerable size received cheaply an application to each foot, which would so check the disease for a season that it would not materially interfere with their thrift. This practice was continued throughout the summer, as often as the case required, till the entire flock was fitted and sold for the shambles."

*For the New England Farmer.*

#### TWADDLES AND WADDLES ON AGRICULTURAL EDUCATION.

*Twaddles.*—I meant to have spoken to you the other day, Mr. Waddles, in our conversation on general agriculture, upon the subject of agricultural education, as it is one which interests me much, but time did not permit. You must know that there is much controversy at present upon this matter, and encouragement is given by some of our first men to introduce agriculture, as a department of education, into our common schools, with the prospective view of establishing an agricultural college in this State, something like those in Europe, which are in so successful operation. You must also know, Mr. Waddles, that such education is much needed, especially by the rising generation.

*Waddles.*—Yes, sir, I know there is much discussion upon the subject, but I question whether such facilities are as much needed as the education; and I am far from thinking that European farming, with all its objectionable appurtenances, is proper for us to adopt. It would require a thorough revolution of all our laws and customs, which would be a great detriment to the real happiness of the people, and more particularly to the small, independent farmer.

*T.*—That I think is not proposed. But you must admit that farmers should be educated for their business.

*W.*—Certainly; and has not every man the best means for such education, who has a farm to till, books and papers to read, and lectures to listen to? who gets his theories from his own reflection, the experience and suggestions of others, and tests them in the general course of his operations on his own land?

*T.*—Why, Mr. Waddles, I suppose not; he wants it taught him. And do you not know that agriculture in America has fallen behind the age, and that the only way to bring it up to par value and dignity, is to educate, thoroughly educate, all who intend to engage in it?

*W.*—No, Mr. Twaddles, I respectfully deny that

agriculture has fallen behind the age, although in this State it may be necessarily passing out. But if our journals, books, fairs and lecturers have not kept it up, pray what can? Have all these, which have been thought so useful, been in vain? And as to the means of education, a farmer is perpetually at school, conning his great volume, and studying the special capabilities of his own farm, and consequently is, or can be, as well educated for his business as others of different vocations are for theirs. Farmers are not so ignorant of their calling as many soft-handed scholars suppose them to be, though they may be hampered for want of means. As to the dignity of farming, the easy, professional man has always looked down upon the hard laboring man in all vocations. It is a whim of society, and no schooling or colleges can regulate it, any more than they can make the sky rain potatoes. Take England, with her numerous agricultural schools for the poor, which are proposed partly to be copied, and do we not find the mass of the farm laborers only little above slaves both in morals and intellect? So fully did Mr. Colman notice this fact, that his Reports may be regarded as Books of Lamentations. And I think you will not deny that they are considered infinitely more degraded than those here, where we have no such schools or colleges, of any influence, to dignify them.

T.—Well, freely I admit it and regret it. But you forget the tenant farmer. He is generally an intelligent, well educated person; is thought—

W.—Well of, I suppose, because he superintends on his pony, and doesn't do what the more aristocratic class regard as drudgery. Excuse me, but I suppose you don't intend to make tenant farmers here because they only are respectable there.

T.—No, sir, that would be folly; for here our land-owners are too numerous, and large tracts of land in one man's possession too uncommon.

W.—Certainly; let this whim of dignity take care of itself, as it must; the less farmers think and say of it the better. In spite, however, of the schools, the man who lives at his ease will always be distinguished from the thousands whose necessities oblige them to labor. Upon this subject a philosophical discourse might be written.

T.—Or a sermon preached.

W.—Yes; and this reminds me that you are a clergyman.

T.—True, but I once worked on a farm.

W.—And feel an interest in the education of the laboring classes, and particularly the farmer, though you from some cause or other left his honorable vocation.

T.—I left for education, but my sympathies are with him.

W.—You ought to have returned with both. And you and others say, virtually, that he is ignorant and degraded, raises meaner crops than they do in England, and don't understand his business, as you unfairly suppose from this latter fact, that there is no uniformity or system in agriculture, and that in this land of freedom each one does as he pleases on his own soil.

T.—Why, yes; I suppose I must make a general plea of guilty.

W.—Now suppose your agricultural parishioners should politely say to you, through some "Resolutions," that your theology is very feeble, unca-

nonical stuff, that you don't preach as satisfactorily as others do, that you have some crude notions of your own, that you preach upon an indefinite system, if upon any, that you learned nothing useful at college, and that you don't understand your business. Would you not consider it in them (even whose servant you are) the concentration of impudence?

T.—Most certainly I should; for I think I understand *my* business.

W.—Think? Is not that presumption? Do you *know* that you understand your business, and that they are ignorant of theirs?

T.—But, Mr. Waddles, they don't understand theology.

W.—Haven't you taught them? Do you understand agriculture? Pray, is theology, with its thousand phases, better understood, and more definite than agriculture? Do we know anything more about God than we did a hundred years ago? Cannot the farmer justly say, that religion, so ably represented by a *learned* profession, is behind the age, with as much force as the clergyman can aver that farming is?

T.—But theology is a very dark and abstruse matter, and it is not my fault that there are so many religions extant, represented by equally learned men.

W.—No, sir, it is not. But you regard agriculture as so mysterious a science, that it requires learned men to successfully prosecute it. Upon this system of collegiate education, will not learned farmers be as likely to differ as learned theologians? If I become sick by digging ditches for tile, or by hard labor, or indiscretion, and die, is the learned physician to be told that he don't understand his business? Perhaps he don't. But who can teach him? The best lose patients, just as some good farmers occasionally raise poor crops. Nor because some one cures a certain disease in Europe, while many fail in it here, will it do to charge the American physicians with ignorance. There are a great variety of circumstances to consider. In England, however, generally speaking, the learned profession of medicine has been lately styled "a withered branch of science."

T.—Why, Mr. Waddles, nobody does so charge them.

W.—Perhaps not; but they might with as much consistency, as some farmers are charged.

T.—Ah, but please recollect that it is appointed for all men to die, and medicine is an uncertain science.

W.—So is farming; and it seems also to be foreordained that the elements should sometimes destroy the crops. That is a sprig of *my* theology. Now as to the other *learned* profession, the law. Can any member of this profession innocently charge a farmer with ignorance, seeing defects in his operations, while he himself daily becomes entangled in the proverbial intricacies of his own vocation?

T.—Good. I don't see how a lawyer could.

W.—Well, then, it would seem that agriculture here, without colleges, is still up even with theology, medicine and law—the three learned professions which require such profound erudition from the schools.

T.—But, Mr. Waddles, you forget that no vocation is perfect.

W.—No, sir, that's just what I've been telling

you; they are not. Agriculture is imperfect. But with its present literature, I think nothing better for its advancement than individual tests on the soil, by men having strong common sense, and loving their business. Farmers may find a profit in splitting rails, but not in hairs. They who till the soil for a livelihood cannot stop long to ascertain whether plowing ten inches deep is better than nine, or whether manure buried four inches is more advantageous than that of three. It is enough for them to get their plowing at an ordinary depth, and plenty of manure to apply in the ordinary way. Neither is it necessary that they should know the name and history of every weed that falls under the hoe in their gardens, or that carbonic acid enters largely into the organization of plants.

T.—But you ought not to overlook chemistry, botany, vegetable physiology, geology, &c. Certainly, these sciences every farmer ought to be conversant with.

W.—That would be a laborious accomplishment; a little tending to the superfluous and ornamental; and if all those who live upon the products of the earth were obliged to wait for their food till such farmers produced it, farming would not be likely to be profitable afterwards, even if a few passed through the famine to do the raising!

T.—Strange ideas of education! Well, now tell me frankly, are you not in favor of those sciences I alluded to being taught in our common schools, so that youth, when they come upon the farm, may know something of, and love these studies?

W.—Yes, voluntarily and with discrimination. They are now so taught in our high schools and academies, and in some of our common, district schools, when the parents or scholars wish them. You, I know, are in favor of teaching children something that will be useful to them in after life. So am I, and so is every sensible person. But if I do not intend my son to become a farmer, I do not wish him to spend his time in studying these branches with a view of becoming a farmer, because, forsooth, farming may be the most important vocation of the State. And I would not admit that the Board of Agriculture, or the Government should dictate to me what was best for him to pursue in after life, and educate him accordingly, whatever his, or my wishes. This idea is education become rabid. The common or high school is not the place to learn trades, but merely to get the rudiments of a general (not special) education.

T.—But I trust you don't regard agriculture as a trade. I look upon it as the most complicated science known.

W.—So it is; unfathomable in mystery; nevertheless, it's a trade, the practicable operations of which are as easily learned as most any other manual vocation; and it has been well said that the unscientific farmer can raise as good crops as the ablest chemist. Or it is an art, the thorough understanding of which is of more importance than its scientific aspect. The tilling of the earth being the common and natural business of mankind, (of which all others are the exception,) it would be cruel in the Creator to make the conditions of good crops so complicated as to defeat the purposes of agriculture.

T.—But, Mr. Waddles, I don't see but your system of education would keep every boy at home, or at least, you would have no institutions to teach the professions we have just alluded to; viz.: law, medicine and theology.

W.—Not at all. If I had a son who wanted to study medicine, (and the Board of Agriculture had no objection,) I would send him to a medical school; for a farm would not be the best place to study this science. And so, also, of law and theology; these studies being necessarily more intellectual, for which a well conducted farm would furnish but few facilities. But if I wanted him to become a farmer, and carried on a good farm myself, I would keep him at home, or put him with some good agriculturist; where, probably, instead of creating a debt of several hundred dollars, he might earn a portion of the sum. And this would be his institution, and a very proper one. If he wished to study this subject at school, fifty cents would furnish him with the proper books. But this should be voluntary on the part of parents and children. The State obviously should not assume to teach agriculture in the common schools any more than any other useful vocation; for instance, that of a builder, machinist, shoemaker, engraver, &c.

T.—Well, sir, if the town schools did all this, would it not be better than spending years in teaching the useless dead languages and the higher mathematics? Besides, what objection can there be to teaching agricultural chemistry, botany, &c., even if they do not give the rudiments of other callings?

[To be concluded in another number.]

*For the New England Farmer.*

#### A TEST OF CHARACTER.

MESSRS. EDITORS:—At the commencement of this century and previously, farming was the principal business of New England; and rearing swine and fattening pork was one of the most important items in farming. Almost invariably swine run at large during the spring and summer. You could hardly pass a farm-house without seeing from two to twenty, old and young, in the highway, or squealing, or wrangling about the trough where they were fed, all yoked and ringed according to law; for so the statute provided; that swine "going at large, be ringed all the year round so as to prevent their doing damage by rooting," and "yoked from the first day of April to the last day of October." Yokes were often made of a crotched stick with a bar put across below the neck upon the two prongs. If this were not done by the owners of the swine, every town had its board of hog-reeves, usually young married men, duly qualified, whose duty it was to yoke and ring all that were found in the highway not so accoutred. The fee for yoking and ringing every swine was "twelve pence," before the Revolution, afterward, "eighteen." Most farmers, of course, took care of their own swine. Hence hog-yokes upon every farm were an important article.

I remember an anecdote, which, in my boyhood, I used to hear my father relate of one of his neighbors, which may be worth preserving, for it has a moral that may apply to other times and other occupations. He was accustomed to hire



young men, in the spring, to work on his farm. When a young man presented himself, he would ask him, "When was the right time to cut hog-yokes?" One would say, in the spring, another in the fall or winter; others, not knowing what else to say, thought it was in the old of the moon, or in the new. To all such he would say, at once, "Well, you may go along; I don't want you." At length a young man called, no brighter nor smarter in his appearance than others, to whom he put his usual question, "When is the right time to cut hog-yokes?" "Well," said he, "I always cut them when I come across them." "Then," said he, "you are the man for me. You may go to work." Verily, there is a time and season for every work that is done under the sun. N. S.

*Monadnock, No. 4, 1860.*

**REMARKS.**—The questions put by the father were a pretty good test of a man's *aptness*, or that peculiar characteristic of the Yankee to take advantage of every circumstance to facilitate his business. Now a hog-yoke is a thing of peculiar form, and if one were to start into the woods to hunt for one, he might spend hours or days in vain, so that it will be seen that the answer of the young man was a shrewd one,—that he cut them whenever he came across them.

#### DEADENING WALLS AND CEILINGS.

Men of ingenuity, lend us your ears. There is no greater nuisance in modern houses than that of the transmission of sound through parti-walls. Any practical, inexpensive and efficient means of deadening sound will be a great boon. Solid walls and solid floors transmit sound in the highest degree. The Metropolitan Building Act provides that all parti-walls shall be solid and of a certain thickness in proportion to height and length. How is the evil to be overcome? "For eight years," writes a studious friend to us, "I have occupied a house in London; and during the whole of this time, there have been neighbors having young families. They are musical, and, I must confess, labor most industriously at the scales; morning, noon and night one or other child howls and strums, apparently without making any progress." There is no objection to neighbors' children learning music and singing—quite the reverse; but it is most objectionable that walls should so readily transmit sound, and render the ladies' efforts so widely known. Some persons always take a corner house, so as to be free from such nuisance on one side at least. Is there no remedy? The late Mr. Cubbitt had some trouble at Balmoral with certain floors, and remembered in taking down an old palace floor (many years before,) vast quantities of cockle-shells fell out from betwixt the joists. These had been used in plugging. The idea was acted upon. Cockles were dredged, and brought; the shells were cleaned and dried, and used, with beneficial effect. The cellular spaces thus produced absorbed sound. Some highly cellular texture may be applied to walls, ceilings and floors, which shall resist fire and ordinary decay, allow of finish, and yet deaden sound. Who is to invent and introduce such materials? They may patent

the invention and make a fortune, if they will only abate the existing nuisance, and enable us to have solid parti-walls and fire-proof floors without being compelled to hear what is going on up stairs and in the next house.—*The Builder.*

*For the New England Farmer.*

#### CATTLE DISTEMPER.

TWO COWS SLAUGHTERED BY THE COMMISSIONERS AT EAST LEXINGTON, 11TH INST.

A short time previous to the extra session of the Legislature, I expressed my doubts, in a communication to the *Farmer*, of the contagiousness of the disease prevailing among Mr. Chenery's cattle and others, and intimated some lack of confidence in the post mortem examinations that had already been made, as they betrayed, to my mind, a pitiful ignorance of physiology and pathology. Nothing has transpired since to remove my doubts.

A week before the extra session of the Legislature, a meeting of the State Board of Agriculture, the cattle commissioners and other interested was held at the State House, when Dr. Bartlett asked why it was, if the disease was so contagious as represented, that Mr. Chenery's cattle had not communicated the disease to any of the adjacent herds, &c.? Dr. Loring replied that every precaution had been taken to prevent its communication, and the reason why no cattle had become diseased from Mr. Chenery's was simply because they had had no opportunity. That it was contagious was as "obvious as foot-prints upon new fallen snow."

When the disease was raging among Mr. Chenery's cattle last season, a part of the herd was turned out to graze adjoining a pasture occupied by the herd of Mr. Stearns Smith, with nothing but a common stone wall to separate them. At this time, two, at least, of Mr. C.'s cattle (calves) died in the pasture, and one of them was not noticed till decomposition had taken place. Mr. Smith's cattle have not appeared to be affected in the least. No town in the State is more free (Mr. C.'s farm excepted) from cattle disease and panic than Belmont.

Last April Mr. Chenery's oxen came to Mr. Peter Wellington's barn for hay—they had been there not long before. Last November these oxen were thought to have the cattle distemper—pleuro-pneumonia—but had recovered at the time of getting the hay. Mr. Wellington had several cows in and about the barn, three of which, at least, were tied up in the barn while the hay was being loaded. Two of these were boarders, and belonged to Mr. Edward Mulliken of North Cambridge. The third belonged to Mr. Peter Wellington, and ate from the same crib with Mr. C.'s oxen while in the barn.

Last week, Wednesday, the Board of Cattle Commissioners met the full Board of Selectmen at Mr. Peter Wellington's barn and after examinations and consultations, Mr. Mulliken's cows were slaughtered by Dr. Thayer, who, with others, had pronounced one of the cows, at least, to have diseased lungs. She had coughed a little, but appeared to be perfectly well. On examining the lungs of each cow, they were unanimously pronounced to be as healthy as those of any cow in the

State! Dr. Oramel Martin, of Worcester, was the only one present of the appointed Medical Commission, and he stated that a peculiar appearance of the lungs, which at previous examinations he had pronounced diseased, was *not* disease, but was not uncommon in health, and "further observation had led him to back out of that belief." Dr. Thayer frankly confessed that in the lungs before him the disease which he had diagnosed was not to be found.

Mr. Wellington was given to understand that the third cow would be slaughtered, probably, at some future time, and his son, Mr. Andrew Wellington, particularly requested that it might be deferred as long as practicable, *for his infant child was fed exclusively on the milk of that cow!*

Lexington, July 19, 1860.

RUSTICUS.

### THEORY OF CURING HAY.

#### QUESTIONS TO THE POINT.

We are just in the midst of the haying season. Believing that to husband this most important crop in the best manner possible, it is necessary to understand the chemical changes which take place during the curing of hay, or when it is damaged, I submit to you a few questions, which please answer through the columns of the *Home-Steak*.

1. When a handful of well-cured hay is allowed to be saturated with dew, how is it damaged?

If it does not drip, nothing soluble is carried off. When the hay dries, I cannot see but that an analysis would give just as much sugar, just the same quantity of albuminous compounds, and just the same quantity of fatty matter; but it is damaged. How?

2. Is grass only wilted damaged as much as cured hay by dew?

3. Can it be that grass cut when the dew is on will not make as good hay as that which is cut free from dew or rain?

If it will not, please give the reason. I cannot see how it is. It may take less labor to make the hay, but is it *much* or *any* better? I should be glad to see how it can be damaged.

4. Is it the flavor of hay that is destroyed when it is exposed to the sun for the length of time farmers generally do?

5. When hay is dried excessively in the sun, is there not the same quantity of sugar, albumen, &c., in it?

6. Is the per cent. of water in old and *unsalted* hay the same, without regard to the species of grass from which it was made; or will different kinds of grass dry away and retain the same quantity of water?

In answering the foregoing questions you will confer a favor on yours truly,

Oxford, July 12th, 1860.

BENJ. WOOD.

ANSWER.—It is a real pleasure to be subjected to a discriminating catechism like the foregoing. We might play Sir Oracle, and endeavor to impress our readers with the stores of wisdom which we have to draw upon for their benefit; but the fact is, our correspondent touches upon subjects very difficult to discuss, for lack of facts and full investigations. We must argue from facts proven in regard to other things, and from those practi-

cally demonstrated, and perhaps take as true the statements of theorists which have led to successful practice.

It may be that the various changes occurring in grass and similar vegetables, under the circumstances incident to hay-making, have been investigated by some competent chemist and vegetable physiologist; but we know of no record of such investigation, and it is very much needed.

The juices of plants must be regarded as living or vitalized fluids, and the changes which they undergo in drying or dieing, must be regarded not as if they were mere solutions of sugar, gum, mucilage, albumen, etc. It is true that if we dry a solution of a mixture of many of such substances, in which no fermentation is active, we shall simply dry it without change; but if such a solution be in fermentation, changes will take place which a certain degree of dryness will check, and which will be recommenced whenever sufficient moisture is present. There is a vast difference in the changes thus induced which occur in different plants, and in the rapidity or ease with which they take place. Whoever preserves plants for an herbarium, knows that if he would preserve the natural colors of the flowers and leaves of many plants, he must secure very rapid drying before fermentation commences. The leaves of most of the lily tribe are of this character, and show by turning yellow, the least commencement of fermentative changes, and in this respect are vastly more sensitive than the foliage of most other plants.

Changes in vitalized organisms may be regarded as solely, or chiefly at least, in the fluids, and in the solids only as they are acted upon by the fluids,—so the juices of grass are our chief concern. These juices are, in the first place, living fluids, and as such, liable to change; they pass readily into fermentation, and in this condition are liable to certain other changes. The changes, while still there is vitality, are of a character similar to natural growth,—formation of cellular structure and woody fibre from soluble or partially soluble matters of the juices, maturing of the seed, &c. The changes induced by fermentation, on the contrary, are of a degrading character,—that is, tending towards decomposition. Fermentation changes starch into sugar, and this into alcohol, and alcohol into vinegar—each a less complex body than the preceding. It is incipient decay.

All these changes are arrested by a certain degree of dryness. If the dryness is excessive, we suppose that the vitality of the fluids of the grass is destroyed, and fermentation commences when there is sufficient moisture more readily than if the juices are so dried that a uniform thickening of them takes place, and they remain unchanged in other respects. There are, however, plants which may be dried to a good hay dryness, and still, when moisture comes, revive and live, striking root perhaps, or at least maturing seed.

The sunlight exercises, as we all know, a most powerful influence in promoting chemical changes. This can be seen in hay as well in anything else; but a few familiar examples not of the field may illustrate it better. Brown linen has a peculiar odor, a greenish brown color, etc.; it is bleached by dew and sunshine, white as the driven snow. Solar light contains what are called chemical rays, because this influence can be separated just as blue from yellow in the spectrum, and a great va-

riety of chemical processes depend upon these chemical rays,—the blackening of indelible ink, all photographic processes, etc., are familiar examples.

Plants of all kinds possess certain odors arising from volatile ingredients, usually volatile oils; these give the peculiar flavor to different kinds of hay to a great extent, and certainly have a very beneficial influence on digestion. Exposed to the action of the sunlight alone these are lost or changed to a great degree. Who would ever think of drying aromatic or sweet herbs a day or two in the sun? or especially, leaving them to be exposed to dews? The flavor would be woefully wasted. The good granny who takes care of such things, dries them on the warm attic floor, or on a salver in the sun, covering them with a double thickness of newspaper, and watching them that they do not get too dry before they are bundled up, and laid or hung in a closet of uniform temperature, neither moist nor hot. She understands that the exclusion of sunlight and quick drying are both essential to the preservation of flavor in her herbs.

We can hardly set too high a value on *flavor* in hay. The relish with which food is eaten is connected directly with the ease of digestion. Musty bread is just as nutritious as any, as regards its chemical constituents, but it is not so good food. So really relishable food is much better and goes further with man or beast than that which does not relish, be it of positively bad or of no good flavor. Admitting that this is the only evil of sunlight, viz., to deprive the hay of a portion of its aroma, this is enough to lead us to expose it as little as possible to the sun. But how much the sunlight aids in the formation of hard, woody fibre from the soft cellulose or from the fluids of the hay, we do not know, though it is not improbable that it does so.

Very slow, continuous drying, or drying under such circumstances as not to induce fermentation, allows changes to take place which result from vital action; thus the hardening and formation of the woody fibre almost inevitably occurs, reducing the soluble cellulose, the starch, sugar or gum, in like degree.

The whole aim of the plant is to mature seed and store in its roots food to give it a good start in the spring, or protect it against the accidents of close browsing, etc.; so when cut the little remaining vitality is directed to the seed, and in connection with its ripening, the increase of woody fibre in the stem inevitably occurs. We argue, therefore, that quick drying is desirable; but if this is impossible, fermentation, (heating in the cock) sufficient to destroy vitality, though not sufficient to cause essential changes in the substance of the hay should be secured.

We are now prepared to discuss the questions proposed by our correspondent; and must do so most briefly.

(1.) Well cured hay is injured by dew, because it is moisture alone of the conditions necessary to fermentation that is wanting in well cured hay, and when this is supplied by the dew it recommences injuriously. (2.) Grass only wilted is still possessed of vitality, and is not as much damaged by dew, if it be really damaged at all. (3.) And so grass cut with the dew on is not injured by the dew; but if the drying is essentially inter-

fered with, and the exposure to the sun necessarily increased, it is an evil, to be considered, but probably of no great moment, except as it makes more work. (4.) We have already given our views in regard to the loss of flavor caused by the sunlight, and would answer *yes* to the fourth question. (5.) The fifth question we cannot answer; and (6.) We have no doubt different kinds of grass made into hay and in the same mow contain different percentages of water.—*Homestead.*

For the New England Farmer.

#### LINES,

On finding a Dead Young Bird in the Corn-field, while Hocking.  
June 9th, 1860.

BY THE FRAGRANT BARD.

Poor little bird! 'tis sad to see  
Thee lying here so sorrowily,  
Lost from thy native sheltering tree,  
And leaf-rooted nest.  
Beside this hill of corn shall be  
Thy noteclass rest.

Did wanton school-boy hurl the stone?  
Or murderous villain aim the gun?  
Or, yester evening, when the sun  
Sank down the hill,  
Did the cold rain-rills round thee run,  
To drench and chill?

Now, bright around thee pours the day;  
The springing corn-blades waving play,  
And all thy sportive mates are gay  
With tuneful breath.  
O, do they know that here you lay,  
Songless in death?

'Tis thus with selfish man, I know:  
He sees a fellow mortal go,  
And, saving when he feels the blow  
Strike home and near,  
He little heeds the sufferer's woe,  
The mourner's tear.

Ah, me! I'd once a birdie sweet,  
Whose days, like thine, were winged and fleet!  
The angels came; her little feet  
Had weary grown,  
And with them to the blest retreat,  
Long since, she's flown!

**THEORY OF CURING HAY.**—We copy with much pleasure from "*The Homestead*" of July 26, an article upon the subject of curing hay, a business which, in our opinion, is still imperfectly understood. We ask for it a careful perusal, and especially so by our haymaking friends of the "*Hingham Agricultural Society*," whose intelligent investigations on this and kindred points are worthy of all commendation.

**AN EXCELLENT USE FOR DOGS.**—An exchange says the most profitable use that nine-tenths of all the dogs in this country could be applied to, is to mix about five dogs with a barrel of lime and ten cartloads of muck in a compost heap. A barrel of wood ashes may be added to help the decomposition of the bones. We believe that a dressing of this compost, applied to sheep pastures, would greatly enhance the production of wool.

*For the New England Farmer.*

THOUGHTS SUGGESTED BY THE N. E.  
FARMER, JULY, 1860.

*Page 301.—Do animals consume food in proportion to their size?*—The affirmative answer to this question, that which ninety-nine out of every hundred of farmers would give to it, seems so perfectly in accordance with the dictates of common sense, and with general experience, as to make it next to impossible for us to believe that a man, who uses his head to so much good purpose as Mr. JOHNSTON is well known to do, could possibly intend, in the paragraph here quoted from an article of his in the *Country Gentleman*, to contradict flatly this affirmative reply, or give a directly negative one. Though his words may seem to imply such a negative, yet we believe he does not really intend to say that the common opinion in reference to the amount of food required to sustain animals in their present condition, or in *statu quo*, is incorrect. He was not writing in that article about common feeding of stock, or such feeding as would just carry them through the winter in *statu quo*, but about buying and fattening cattle and sheep. Hearing of Mr. JOHNSTON's superior good judgment and success in this department of the farmer's manifold operations, a "young farmer" had asked Mr. J. to give him some information about buying and fattening stock. In reply, Mr. J. informs "young farmer" that it is better economy to buy sheep and cattle of rather large size or live weight, as the large-sized will lay on flesh and fat upon the same amount of extra feeding, quite as fast as those of smaller size, or even faster. He does not say any thing, as we understand him, about the whole amount of what they will consume, including grass or hay, but speaks only about their extra feeding, or of the meal of cake or grain, which must be given them in order to make them fat, or in condition for the shambles. He does not say that an ox of 1400 pounds, will not eat more grass or hay than one of 900 or 1,000 pounds, but only upon an equal amount of meal, along with what grass or hay each may choose to eat, the heavy ox will fatten quite as much or as fast as the lighter or smaller one, or even more so. This, surely, is not hard to believe; and this, surely, must be what is meant. It is not hard to believe, for we see every day, both among men and among domestic animals of all kinds, that some make more flesh and fat out of equal amounts of food than others do. This is especially noticeable in the case of swine, some breeds, and some individuals in every kind of breed, laying on flesh and fat much faster than others with exactly the same amount and kind of feeding. Then as to Mr. JOHNSTON's meaning, one reason why we think that it must be what we have stated above, is this, that he says nothing about the amount of hay which is consumed, but states only the quantity of meal, three or four quarts a day—which he gives to each ox, while we learn from this and other articles from Mr. J.'s pen, that he does not confine his fattening cattle to the stable all the time, but allows them out in the yard the most of the time, where he feeds them hay in boxes, which they go to at their pleasure. Now, as Mr. J.'s hay is of the best quality, and as his fattening stock eat of this as much as they please, the rea-

son why the largest fat the fastest, may be that they consume more hay, though no more meal; or it may be that an animal, which at the same age, weighs much heavier than another, possesses a power of manufacturing more flesh and fat from its food, than the smaller animal of the same kind; or it may be partly both of these.

With such an interpretation of the language of Mr. JOHNSTON, and such an understanding of his meaning, farmers will not be under the necessity of supposing that Mr. J. has made a great mistake, or that they have the testimony of a man of so much sagacity and experience against them, when they believe that animals consume about two to three per cent. of their weight of hay, or its equivalent, per day; while those engaged in buying and fattening stock may thus receive from him a valuable hint, for which they may, when verified by their own experience, feel under much obligation to him who so readily imparted of his light for the guidance and benefit of his brethren. Let them read the whole of the article from which the quotation is made, and we think their knowledge of their business—buying and fattening stock—will be materially increased, their obligation to Mr. J. more sensibly felt.

*Page 304.—The secret of having good milch cows.*—The whole of the secret or art is not given in this brief article; but undoubtedly a large share of it is. Corn fodder, roots, and other food naturally succulent, or made so by cooking, as Mr. BOUTWELL tells us at page 310, he prepares the food of his cows, is one of the essential requisites to having good milch cows. This article, and that of Mr. BOUTWELL above referred to, contain information or hints which might be made of more value to many than the cost of the *Farmer*, either weekly or monthly, for a series of years.

Mr. GRAVES' cows average about 2,500 quarts a year, and the poorest of Mr. BOUTWELL's stock will yield, he says, 200 cans, or about 2,000 quarts, while some of the best have given a little under, and others a little over 300 cans, or 3,000 quarts. Mr. B. is confident, as well he may be, that few cows will yield 200 cans (2,000 quarts) of milk per year when fed on dry hay in winter.

*Page 315.—A good heifer.*—The yield of milk in this case, 4,946 quarts in a year, is so much larger than that of the best of Mr. B.'s cows, that we would really like to know more of her winter keeping and other particulars. MORE ANON.

**FINE WOOL AT THE SOUTH.**—In reply to a correspondent, who asks whether a warm climate is unfavorable to the growth of fine wool, the editor of the *Georgia Southern Cultivator* remarks: "Our observation during the last six years on the produce of Merino sheep, brought from the very best flocks of Vermont and New York to Georgia, is, that while there is no loss in the weight, there has been a decided gain in the fineness of the fleece. If a 'South Carolinian' will just prepare good pastures, and then get good Merino sheep, he will find that he can raise fine wool at a greatly less expense than is possible at the North. We are not speaking hastily when we express the conviction that wool growing, properly conducted, is, by far, the most profitable branch of agricultural labor at the South."



### DESIGN FOR A TUDOR COTTAGE.

DESIGNED FOR THE NEW ENGLAND FARMER. BY G. E. HARNET, ARCHITECT, LYNN, MASS.

We here present a design for a country or suburban cottage of stone.

The situation most suitable for a dwelling of this class would be on an estate where two or three acres could be devoted to pleasure grounds alone. In this case we should have the lawn—somewhat undulating, if possible—surround two or three sides of the house, at least, leaving the fourth for domestic purposes, containing kitchen garden, orchards, stables and other out-buildings, and shielded from public view by plantations of trees and shrubbery. On the lawn, which should be surrounded by a border of irregular plantations—with the exception of openings left here and there for agreeable distant views—we would plant large trees and shrubs, singly and in groups, and so plant them as to bring into view from the principal points the most pleasing vistas, and hide those objects which are disagreeable to the eye.

We have supposed that the best views of the surrounding landscape may be obtained from the

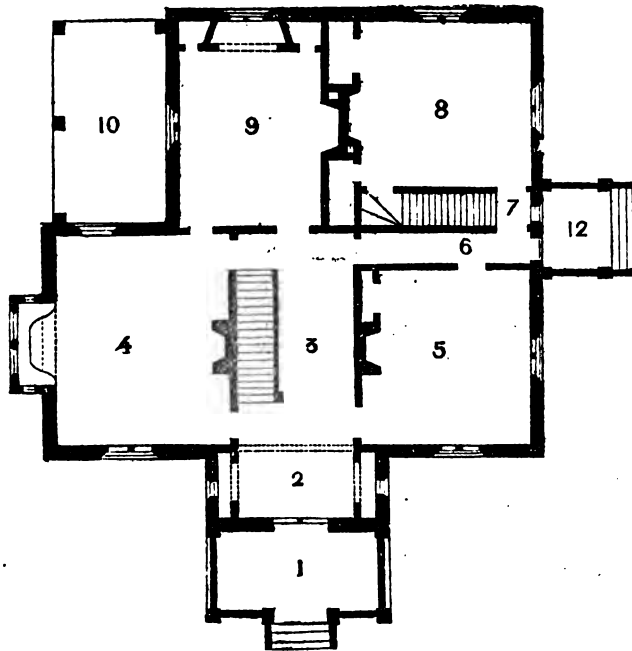
front entrance to the house; hence we have designed the arcade to occupy that position, shielding the front doors, and at the same time forming a very pleasant lounging-place or summer evening retreat. The double glazed doors open into a vestibule, No. 2, on either side of which is an arched recess for clothing, and in front a Gothic arch divides it from the hall proper, No. 3, which is 10 feet wide and 18 feet 6 inches long; on the left, two doors open into the drawing-room, No. 4, measuring 15 feet by 18 feet 6 inches, and lighted by a mullioned window in front, a large bay on the side, and a window on the rear reaching to the floor, and opening upon a veranda, No. 10.

At the end of the hall a door leads to the library, No. 9, 12 feet by 15, containing two closets, with a recessed window between. No. 5 is the dining-room, 15 feet square, and opening upon a back entry, No. 6. At No. 7 are the back stairs above and below. No. 8 is the kitchen, 14 feet 6 inches by 15 feet, containing two large closets,

in one of which is a dumb waiter from the cellar kitchen. No. 12 is a portico over the side entrance. In the cellar are cellar kitchen and scullery under No. 8; drying-room under No. 9; store-rooms under the dining-room, and common cellar under the hall and parlor. The second floor contains four large chambers with closets, a sewing-room over the vestibule and hall, and a bathing-room over the back entry.

**Construction.** — We have designed this cottage to be built of rough stone and covered with cement, or with a wash of some neutral tint. The trimmings to be of freestone, or any dark stone contrasting in color with the walls, and the details of wood painted to correspond. The interior finish should be of a plain, simple character, corresponding in style with the exterior.

The cost of this cottage will depend more upon the locality than a frame house. In situations where stone of a suitable quality is plenty, it may be built and finished throughout for \$5000.



#### U. S. AGRICULTURAL SOCIETY.

Eighth National Exhibition, at Cincinnati, Ohio, September 12, 13, 14, 15, 17, 18, 19 and 20, 1860.

ROOMS UNITED STATES AGRICULTURAL SOCIETY, }  
Washington, D. C., July 20, 1860.

SIR: We have the honor to inform you that the Executive Committee of the U. S. Agricultural Society, who were authorized at the annual meeting in January, to locate and to make all necessary arrangements for the EIGHTH NATIONAL EXHIBITION, have decided to accept the liberal offer of grounds, fixtures, &c., and the guarantee of a twenty thousand dollar premium list, made by Professor Cary, Vice President for Ohio, in behalf of citizens of Cincinnati. This location was presented by Professor Cary to the attention of the Society at the annual meeting in 1859, and (it may be proper here to state) no objection was made from any source, until after it had again been presented by him at the annual meeting in January last, and formally accepted by the Executive Committee at its subsequent meeting, on conditions which have been fulfilled in the most generous manner.

The Eighth National Exhibition will be held at "the Park" near Cincinnati, an area of sixty acres, on the line of railroad leading to Columbus. The grounds will be fitted up in the best manner, and there will be a track one mile in length and forty feet in width, for the exhibition of horses. Every facility will be offered for the exhibition and trial of implements and machines; and as the Exhibition will extend from the morning of Wednesday,

the 12th, to the evening of Thursday, the 20th, (eight days,) it is much to be hoped that there can be those "tests" so necessary to give value to awards. The animated contests of Exhibitors for the Medals and Diplomas of the United States Agricultural Society, prove the high estimation in which these awards are held, and it is but right that they should be bestowed with discrimination, after a thorough examination. The delay which has heretofore attended the distribution of medals will be avoided, as they have already been ordered at the U. S. Mint. Premium Lists will be sent by mail to applicants.

The Agriculturists, Stock-breeders, Horticulturists, Pomologists, Mechanics, Artists, and other industrial citizens of the Republic, and of the adjacent British Provinces, are respectfully and earnestly solicited to contribute to this Exhibition, that it may be one of general interest in all its departments. No labor or expense will be spared to render it creditable to the "Queen City of the West," and worthy of the great Agricultural interests of the country, which the Society represents.

With sentiments of the highest respect, we are  
Your obedient servants,

HENRY WAGER, *President.*

BEN: PERLEY POORE, *Secretary.*

**ORNITHOLOGY.**—In another column we present the reader with the first of several articles which we are promised by our intelligent and obliging correspondent, "J. A. A." Our columns have already been enriched by his contributions, in meteorological and various agricultural matters, and the reader may safely anticipate interesting and profitable reading in the forthcoming articles.



*For the New England Farmer.*

### LAND AND MANURE.

MR. EDITOR:—When will our farmers learn that, to farm with profit, they must cultivate no more land than they can manure well? Being in one of the towns in New Hampshire a few months since, and having an opportunity to learn something of the farming operations of several of the largest cultivators of the soil in the town, I learned that a large majority of them manured only at the rate of from ten to twenty loads to the acre, and this upon uplands that have had the same treatment for many years, which of course is entirely insufficient to have any lasting benefit. The consequence is, that many of the farms from which two tons of hay to the acre were cut years ago, now barely produce one-half that quantity, and very many farms of from one to two hundred acres, and which ought to be a large source of income to the owners, barely afford them a support; and this on land naturally productive.

Now there may be various reasons for this state of things, but in my opinion, the principal cause arises from the miserable policy of cultivating more land than they can manure sufficiently to keep it in its original state of productiveness. I believe it is just as impossible to keep an upland farm in a state of cultivation that will remunerate its owner for his labor and capital, without sufficient manure, as it is for a man to labor without sufficient food to nourish and strengthen him. If farmers will look into this matter, and act up to its truthfulness, my word for it, you shall hear less about farming as being so very unprofitable. Some fifteen years ago, in one of the hilly towns in New Hampshire, a man purchased a farm of about 150 acres, which was pretty well worn out, but naturally productive land, paying but a small portion of the cost down, as he had but a few hundred dollars to begin life with. One of the first things this man did, was to go to the village, and engage manure, and draw it full two miles to his farm, and up hill at that. The farmers about said to one another that neighbor Jones could not afford to buy manure and haul it such a distance, as he was yet in debt for his farm, and they prophesied speedy bankruptcy for him. But neighbor Jones still continued to buy manure, and the consequence was that he got the best crops of any man in town, and to-day he has the richest and most productive farm in that vicinity, all paid for, and his neighbors say it is worth at least ten thousand dollars, and I believe still continues to buy manure as occasion requires.

It was my privilege to visit this town in August last, and from an eminence I could overlook some twenty-five farms, and where almost every other one was parched and dried up, neighbor Jones's was green and luxuriant, showing plainly the effects of high cultivation. C. C. H.

*Boston, July 20, 1860.*

THE CURCULIO.—Having seen our own apples so thoroughly hacked for the last six or eight years, that we have found it difficult, some seasons, to select a single specimen which did not bear unmistakable evidence of the operations of the curculio, we are not a little surprised to find

the following paragraph in the published proceedings of the Ohio Pomological Society.

"Much general conversation was had on the subject, and no one present was of the opinion that the curculio ever committed any ravages upon the apple. Dr. Warder, Mr. Bateham and others expressed the belief that the injury observed by the gentleman in Washington county, was the work of the apple worm, and not the curculio."

### HYMN OF THE HARVESTERS.

We gather them in—the bright green leaves—  
With our scythes and rakes to-day,  
And the mow grows big, as the pitcher heaves  
His lift in the sweltering hay.  
O ho! afield! for the mower's scythe,  
Hath a ring as of destiny,  
Sweeping the earth of its burden lithe,  
As it's swung in wrathful glee.

We gather them in—the nodding plumes  
Of the yellow and bearded grain,  
And the flash of our sickles' light illumines  
Our march o'er the vanquished plain.  
Anon, we come with the steed-drawn car—  
The cunning of modern laws;  
And acres stoop to its clanking jar,  
As it rocks its hungry jaws.

We gather them in—the mellow fruits,  
From the shrub, the vine and tree,  
With their russet, and golden, and purple salts,  
To garnish our treasury.  
And each has a treasure stored,  
All a'neath its tinted rind,  
To cheer our guests at the social board,  
When we leave our cares behind.

We gather them in—this goodly store—  
But not with the miser's gust,  
For that great All-Father we adore,  
Hath given it but in trust:  
And our work of death is but for life,  
In the wintry days to come—  
Then a blessing upon the reaper's strife,  
And a shout at his Harvest Home.

*For the New England Farmer.*

### POTATO.

A variety of potato originated from seed is generally considered in England to continue about 14 years in perfection; after this period it gradually loses its good qualities and becomes unproductive. Without endeavoring to account for the origin of the potato rot, they say that in the present state of this disease, clay soils should be avoided, for out of 163 cases in England, 129 were returned as having suffered much by the disease. Out of 32 cases on peaty soil, cultivated with moss in the hill, 5 suffered much, and 17 little, while 10 escaped altogether. The conclusion to which they arrived was, that in pure, well drained peat moss, potatoes suffer very little from disease. Wood ashes are a safe manure when applied by themselves, and crops have suffered little or nothing by disease, throughout Great Britain, when manured with them alone in the proportion of 27 to 4, but when mixed with farm-yard dung, the success has been as 54 to 15, that is, in the former case 4 suffered much, while 54



nearly escaped. Over-luxuriousness, from whatever cause, was highly favorable to the progress of the disease, and *vice versa*.

Mr. Marcy, in his address before the Hampden Society, remarked, that "potatoes have been stimulated to death. The potato rot, whether it be an insect, or a fungus, or some internal organic disposition to decay, is, we believe, due to artificial stimulating fertilizers. The best potatoes we have seen this year, the cleanest, fairest, the most free from rot, the most perfect every way, were raised on sandy soil, upon which nothing but peat had been placed for several years." L

#### THE MONSTER PETRIFIED TREE OF BLACK ROCK.

Some doubts having been expressed as to the truth of the discovery said to have been recently made in the Black Rock region, of a petrified tree of some seven or eight hundred feet long, J. E. Stevens, the captain of the late silver prospecting expedition in that region, and who fathered the wonderful story, writes to the *Marysville Democrat* on the subject. He says:

"Our party of thirty-five men encamped at the lower end of what we termed the Little Canon, about three miles from which we found this famous petrification, and which is truly a great curiosity and a wonder of the age sufficient to arouse the credulity of those who passed through the 'High Rock Canon' in 1849. At a short distance from this monster of a former age, it seemed to us to be a well-defined line of drift-wood deposited along the line of high water mark of some ancient river, whose bed is now an elevated mountain ridge; but on closer inspection, we unanimously pronounced it one tree, as we found it distinctly marked from the upturned roots to its forks, and its two well defined forks to what was, when standing, an altitude of 666 feet, or 222 such steps as a western frontier man takes when stepping off his distance to shoot at a target, or any man would take in pacing off a turnip patch.

At about 400 feet from the roots, the tree is divided into two parts, or forks, about equal in size, and at 520 feet from the root, I took off a specimen from one of these forks, having on its surface at the time the outer and inner bark of the tree, and which specimen is now in the office of Dr. Thompson, on D Street, between Third and Fourth. From the curves of the lines of growth we estimated the diameter of the branch from which it was taken, to be from 8 to 12 feet, and this, bear in mind, at a distance of 520 feet from the root of the tree and only half the tree at that. This estimate may be too high, or it may be too low, but in the height of the tree, we cannot be far at fault in saying that it measured when standing some 700 or 800 feet in height."

Capt. Stevens adds that J. B. Dorr, lumber dealer, Capt. McKenzie, formerly of the steamer *Petaluma*, and several other gentlemen of undoubted integrity, who reside at San Francisco, will not only confirm the truth of the existence of the petrified tree, but show specimens thereof.

**USEFUL RECEIPT.**—The *Scientific American* advises the ladies, when they wish to wash fine and elegant colors, to boil some bran in rain wa-

ter, and use the liquid cold. Nothing, it is said, can equal it for cleaning cloth, and for revivifying effects upon colors. Try it, ladies.

#### RAISING GRAPES BY HORSE-POWER.

We have been amused by the following statement of a "clericus" correspondent of the Canadian *Agriculturist*. The writer remarks that he had been reading an English work on grape-growing, in which "horse-power" was strongly recommended in the production of grapes, and that he fell into the mistake, very common with amateurs and novices in gardening—that because a little of a thing is good, a great deal must be better; and that because an application was beneficial to a heavy, cold clay soil, it must be equally so to a light, dry soil.

"Having selected a well sheltered spot, some sixty by eighteen feet, it was dug perhaps thirty inches deep. At the bottom were laid one hundred and twenty bushels of bones, to obtain which, the boys with laudable zeal scoured two townships. On these were placed several horses, and to keep them company, a prize bull and a span of oxen. On these again were deposited road scrapings, sand and black mould, fourteen inches in depth. This having been levelled, all was ready for planting. Such was Mr. Robert's prescription. The vines were obtained. Black Hamburgs, Black St. Peters, Zingindal, Royal Muscadine, Golden Chasselas, Pitmaston, White Cluster, Macready's Early White, Red Frontignac and Tokay. They grew the first season marvellously. By the autumn, the canes were long and stout, and bid fair to bear all that it was prudent to permit them to do. The following season they were lifted, washed, carefully and constantly pruned, thinned and trained. They bore abundantly; many beautiful bunches, beautiful for size and color, rewarded the expenditure of toil and expense. But the next season, the third, in which I looked for a large and remunerating crop, what came then? Then when the roots had fairly reached the soddened mass, and their tender extremities were scorched and burnt, then mildew overspread them all. There was no exceptions; Isabellas and Catawbas, and the little hardy black cluster, which were treated in the same manner, one and all, presented a mass of blackened foliage and mildewed fruit. This was raising grapes by horse-power with a vengeance. I know better now. No fresh horse goes into my border now to force an unnatural growth, and then to burn the delicate fibres just as they stretch out to seize the proffered nourishment. Not that the possession of one or many such carcasses is not desirable, but before applying them, they should be covered with mould, and suffered to decay; such mould will, indeed, be rich, and if applied to the plant in small quantities at a time, will nourish it and cherish it to its heart's content. I tell you all this, dear reader, in confidence. I have never told it before. I cannot now wonder at the wry faces of those who beheld my preparations, nor at their solemn asseverations, that they would never eat grapes raised by such a method. Alas, they never had the chance!"

### RAISING PIGS.

*First.* In selecting the pig to raise for a breeder, count the teats. One with twelve fully developed teats will infallibly be prolific and a good nurse—good for milk and careful of her young. Fourteen teats should be preferred; but never try to raise pigs from a sow with less than ten good teats. I risk my swinish character on the correctness of this rule.

*Secondly.* We come now to one of the most important points in the rearing of all animals, especially the hog, viz.: education. I do not mean that it is absolutely necessary that your swinish breeder should be taught to read—though I am not prepared to say she is not capable of learning even that; but I do mean to say, that she should be so petted as to become fond of the person who has the care of her, and thus lose the natural ferocity of her kind, and not be disturbed by his presence when she brings forth her young.

*Thirdly.* It now remains to offer a few observations on keeping. The provident will make the animal earn half her living in manufacturing manure. At all events, she should have sufficient space and exercise to insure good health and the use of her limbs. If she can occasionally have an out-door run, and a chance to root the ground, it will be beneficial. Give a sufficiency of food to keep in good flesh and growing, a sufficiency but not an excess of salt, and an abundance of drink. Keep warm in the winter and cool in the summer. A pailful of cold water, occasionally dashed on to the animal on a hot day, is very reviving and conducive to good health. The hog goes with young sixteen weeks. They seldom vary 24 hours from that time. The feed should be gradually increased as much as eight weeks before they bring forth. For two days after, she should have no food except a little thin warm gruel, not to exceed half a pint a day of meal. She should have all the warm water she will take, which will sometimes be two pailfuls in a day. This is very essential, as it helps the flow of milk and prevents fever. You may now gradually increase the feed till the pigs are two weeks old, when she should be full fed. If you have no better feed, good Indian meal mixed with milk will answer very well, if you give enough and feed regularly. The pigs should be taught to eat with their mother as young as two weeks, which may be done by having a broad shallow trough, and gently putting them into it when the mother is eating.

By pursuing the foregoing course, I have not failed once for the last thirty years, when I have tried, in raising a healthy litter of pigs. Some years of the thirty I have not kept a sow, but have often raised two or three litters in a year. I am considered one of the lucky kind. By trying this plan, and avoiding breeding in-and-in, some of the unlucky ones may possibly change their luck.  
—J. H. Willard, in *Maine Farmer*.

**SEEDS FROM SYRIA.**—The Patent Office is in the receipt of a very large and fine assortment of seeds and cuttings from Syria, at the very moderate expense of \$1000. They were collected by the Rev. Dr. Barclay, missionary there. There are varieties of wheat, barley, grape-cuttings, olives, scions of fruits, vegetable products and useful plants. The scions, cuttings, &c., will be sent

to the propagating houses for experiment and increase, and no distribution of the remainder will be made before the fall. Among the interesting plants is the lessaban, from which it is said the crown of thorns was plaited. It is very ornamental, and makes excellent hedges. There are also seeds of melons, squashes, camels' food, dates, walnuts, equal to the English, and probably well adapted to the Southern or Middle States. The seeds of the mais tree, which is esteemed as medicinal or prophylactic, were procured from the inclosure of the Temple of Solomon.

The next Patent Office report is to contain directions as to the proper manner of sowing seeds, as it is known that many of the failures to reproduce from the seeds distributed by the Patent Office arise from ignorance of the proper methods to procuring germination.—*Washington Letter*.

### NEW BOOKS.

**NATURAL HISTORY.** For the use of Schools and Families. By Worthington Hooker, M. D. Illustrated by nearly 800 engravings. New York: Harper & Bros., 1890. For sale by A. Williams & Co. 1 vol., 12mo. Price \$1.

There are few things that afford us more pleasure, than to find well analyzed and well-printed books upon natural history, philosophy, chemistry, agriculture, or upon any of the useful arts or sciences, taking the place of the exciting and miserable works of fiction which have been paraded before the public for the last twenty years.

Illustrated works on natural history are always attractive and acceptable to the young, and the one before us cannot fail to find its way into thousands of schools and families, and exert a most happy influence there. It contains a mass of material, which every well informed person ought to know, "but the grand practical benefit to be derived from the study of Natural History, is the discipline which it gives the mental powers. It cultivates the perceptive and reasoning powers together, thus forming that habit of *intelligent observation*, which makes its possessor, as a matter of course, a person of extensive general information, and is an essential element of success in almost any pursuit in which he may engage." The book is printed on large type and good paper, and illustrated with fine engravings of the animals of which it treats.

**THE HAND BOOK; or, Annual Record of Horticultural and Agricultural Statistics.** compiled from various sources. By Wm. P. Sheppard, New York.

This work treats of some of the general principles of farming and gardening, and gives a descriptive catalogue of culinary vegetables, and other garden plants. It has, also, a list of new plants, and some useful tables of statistics.

**THE CATTLE DISEASE.**—There is now every reason to believe that the wise and energetic precautions taken by the authorities of Massachusetts have operated as an effectual check upon the progress of the terrible disease which at one time threatened contagion and death to the cattle herds of New England.—*Maine Farmer*.

### WHAT CONSTITUTES LEGAL UNSOUNDNESS IN HORSES.

A *Knee-sprung* horse can hardly be said to be unsound. He may be a very fast horse, and can endure with ease the labor of any common, ordinary horse, although there is an alteration of structure which unfits him for the race-course. This would not be likely to produce disease or lameness; he would be more likely to grow better than worse, if used for common purposes. But, if so bad as to produce stumbling and falling, he would be unsound, and a warranty should be taken against such defects.

*Capped Hocks* cannot be considered unsoundness, if produced by an uneven stable floor, or by kicking; but, if produced by a sprain, and a permanent thickening and enlargement of the membranes, there would be unsoundness. A special warranty should be required in such cases.

*Contraction of the Hoof* is a considerable deviation from the natural form of the foot, but does not necessarily constitute unsoundness. It requires, however, a most careful examination by the purchaser, to ascertain that there is no fever or ossification of the cartilage; that the frog is not diseased; that the animal is not tender-footed or lame. Unless some of these symptoms are indicated, he must not be pronounced unsound. A special warranty should be required, where the feet are contracted.

*Corns* manifestly constitute unsoundness. Although few men lay much stress on this malady, still much inconvenience, and many times serious difficulties, must be encountered by them, as they are seldom thoroughly cured. Many horses are almost constantly lame with corns, through a scrofulous habit of the system. A warranty against such animals would be safe.

*Trembling Knees*.—This cannot be considered unsoundness; yet it is a precursory symptom of *knee-sprung*. Trembling of the knees, after a smart exercise, indicates weakness, and should be regarded as objectionable.

A *Cough* constitutes unsoundness, however slight or of short standing. If a horse is noticed to cough before the purchase, or immediately afterward, he is diseased; but if warranted sound, and the cough is not discovered till one or two days afterward, he is not returnable; for a few hours is sufficient to contract a cough, by taking cold while standing in a damp, musty stable, or by eating different feed, musty hay, &c.

*Roaring, Wheezing or Whistling*, is unsoundness, being the result of alteration of structure, or disease in the air passages. Although there have been decisions to the contrary, courts and jurors are often at a loss, for the want of intelligent witnesses; and if a veterinary surgeon is called to the stand, not having seen the animal, he is liable to be mistaken from misrepresentation. *Broken Wind* is still more decidedly unsoundness.

*Crib Biting*.—A difference of opinion exists as to this being unsoundness, and courts have given opposite decisions in respect to it. There are cribbers that can scarcely be said to be unsound, as they are not perceptibly injured, and it does not interfere with their condition or endurance. Others inhale and swallow a great amount of wind; they bloat and are subject to colic, which

interferes with their health and strength; this would constitute unsoundness. A warranty should always be taken against injury from cribbing; then if he breaks his teeth or injures himself, recompense may be had.

*Curb* constitutes unsoundness as long as it lasts, and perhaps while the swelling remains, although no inflammation exists; for a horse that has once thrown out a curb, is liable to do so again on the slightest exertion. A horse, however, should not be returned, if he spring a curb five minutes after purchase, for it is done in a moment, and does not indicate any previous unsoundness.

*For the New England Farmer.*

### ANOTHER GREAT ELM.

In the *Farmer* for July 7th, is an account of the old elm on Boston Common. Thinking it would not be uninteresting to your readers, I herewith send you the dimensions of another. Girth of trunk at surface of the ground, 29 feet; girth at 18 inches above surface, 19 feet; girth at 5 feet above ground, 15 feet; height to first limb, 9 feet; height of tree, 78 feet; average diameter of greatest extent of branches, 96 feet.

The tree stands in the yard of Mrs. Norman Boardman, in Salisbury. Although it cannot boast of having counted as many years, or hearing as many famous speeches, or of having performed the friendly office of gibbet, whereon to hang heretical quakers, yet I think it may boast of a more rapid growth. Long after Capt. Joel Boardman, who is now living, settled in this vicinity, he tried to pull the tree, which was then a sapling, up with his hands; not succeeding, he let it stand. A few years later, or about the year 1800, it had attained such a size, and there being a crotch in its top, Mr. Boardman cut it out to make a harrow, which accounts for the shortness of its trunk. About that time holes were morticed into it, and it was used for a bar-post. It is remembered as a tree of about a foot in diameter, fifty years ago. Although it stands without the bounds of the road, it throws its gigantic arms nearly across it, forming a delightful shade, wherein the weary traveller may rest.

A. K. MARVIN.

Salisbury, Vt., July, 1860.

### THE PINE TREES.

The pine is trained to need nothing, and to endure everything. It is resolutely whole, self-contained, desiring nothing but rightness, content with restricted completion. Tall or short, it will be straight. Small or large, it will be round. It may be permitted also to these soft lowland trees that they should make themselves gay with show of blossom, and glad with petty charities of fruitfulness. We builders with the sword have harder work to do for man, and must do it in close-set troops. To stay the sliding of the mountain snows, which would bury him; to hold in divided drops, at our sword points, the rain, which would sweep away him and his treasure-fields; to nurse in shade among our brown fallen leaves the tricklings that feed the brooks in drought; to give massive shield against the winter wind, which shrieks through the bare branches of the plain; such service must we do him steadfastly

while we live. Our bodies, also, are at his service; softer than the bodies of other trees, though our toil is harder than theirs. Let him take them as pleases him, for his houses and ships. So also it may be well for these timid lowland trees to tremble with all their leaves; or turn their paleness to the sky, if but a rush of rain passes by them; or to let fall their leaves at last, sick and sore. But we pines must live carelessly amidst the wrath of clouds. We only wave our branches to and fro when the storm pleads with us, as men toss their arms in a dream. And finally, these weak lowland trees may struggle fondly for the last remnants of life, and send up feeble saplings again from their roots when they are cut down. But we builders with the sword perish boldly, our dying shall be perfect and solemn, as our warring; we give up our lives without reluctance, and for ever.—*Ruskin.*

*For the New England Farmer.*

### ORNITHOLOGY.

The wood, the mountain, and the barren waste, the craggy rock, the river and the lake, are never searched in vain; each have their peculiar inhabitants, that enliven the scene and please the philosophic eye."—*Montague.*

Nature has, indeed, left no void, no bare hiatus in the great circle of her creations. The closer our observations, the more extended are our discoveries, and the more wonderful and interesting. Throughout the great chain of nature there is no vacuity; everywhere is teeming life, in vegetable or animal forms, concerning which something new may be learned by observation every day. Our New England landscapes are burdened with beauty; the rolling hills, luxuriant in pasturage and noble forests; the valleys laboring with manifold crops and fruits; the more distant mountains, clothed with excessive verdure, rising grandly in the blue distance as they meet the purer blue of the sky. The flowers that spring up by the wayside, in the forest and over our fields, are full of beauty and interest to cheer the hearts of the not too grovelling, and furnish delightful subjects for investigation and thought to the observing. But not less conspicuous in our surroundings are the birds; for they not only cheer the sight with their restless activity, but charm the heart with their effluent music that often awakens the noblest emotions of the soul. Their graceful forms and varied colors never fail to please; and that man who, in the beautiful spring-time, when all nature is awakening to new life and beauty, can listen to their matin and vesper songs, and feel no thrill of noble pleasure, must possess a grovelling soul, capable at most of but little real enjoyment.

The habits of birds are instructive, ever-varied and interesting, each species possessing some peculiar characteristics of its own. The study of their habits and instincts affords the highest recreation, and, the mass know not how much of the pleasure of existence they lose by counting these minor things as beneath or unworthy their notice. Adapted to various and widely-different modes of life, some live almost wholly on the wing, as the swallows, subsisting on insects, and never alighting for food, but with a velocity outstripping the gale, course ether from morning till night—now almost lost to sight in the higher regions of air,

and now skimming close to the meadow, the fields and the waters of the rivers or lake, as their insect prey is found to roam high or low in the ambient air. Others subsisting on the same food, watch from some convenient perch, and dart upon the unsuspecting insects as they pass by them, returning again to their watch; while still others of the insectivorous birds hunt their prey amid the leafy thickets, the boughs of the orchard, or the tree-tops of the forest, seldom alighting on the ground. Others, as the finches, sparrows, and many others, with feebler powers of flight, and members better adapted for walking, seek their food upon the ground, subsisting chiefly upon the seeds of plants and the larvæ of insects. Some are found to feed wholly upon insects, some upon insects and fruits, a few almost wholly upon juicy fruits, others chiefly upon seeds, and others, of omnivorous habits, upon all. Still others, again, of aquatic habits, frequent the marshes and the shores of the rivers and the lakes, and the ocean, probing the mud for their peculiar prey, or watching for reptiles and unwary fish; while others, fitted by nature for floating along the surface of the water, or diving beneath it, variously pursue their varied food. Others still, more rapacious in their character, prey upon birds and quadrupeds, in fact, upon all animated nature, exhibit great strength and courage, and spread terror among the weaker animals wherever they appear.

Among the three hundred or more species of birds found in New England, but a very few can be set down as injurious to the agriculturist, the greater part rendering him immense service in his labors; a few neither prey upon his fruit nor assist him in his toils, and those who claim a tithe of his products render ample remuneration in diminishing the insect hordes; and I am convinced that there are none absolutely injurious to his interests. Certainly, then, we may well ask, why persist in their destruction? Why, in ridding ourselves of a small evil, invite a greater? No kind of cultivation is affected extensively, and even this may, in a great measure, be prevented. Experience proves that it is not so with insects and their ravages; "the fate of the locust, the apple, the pear, and many other trees, shows, that if insects fasten themselves upon one of them, we must give it up as lost, for all that we at present know. Surely, then, of two evils we should submit to the one which may possibly be prevented, rather than invite and encourage one over which we have no control."

Of the birds embraced in the ornithology of New England, but few are permanent residents; a few are rare and irregular visitants; a few others come to us in winter from the far North, to escape the greater rigor of a more northern climate; many merely pass through our region on their journey to the distant northern parts of the continent, whither they repair in spring, to pass the period of incubation, and again on their return in autumn, to a more southern clime; and probably not more than half of our regular visitants are known to pass the breeding season within our borders. But few, comparatively, are known to people in general, and very many only to the closely observing ornithologist.

Observes that renowned ornithologist, Alexander Wilson—"For to me it appears that of all inferior creatures, heaven seems to have intended

birds as the most cheerful associates of man; to soothe and exhilarate him in his labors by their varied melody; to prevent the increase of those supernumerary hosts of insects which would soon consume the products of his industry." Indeed, then, are they worthy of our attentive study, of our protection, and not a small share of our affection.

In concluding this somewhat desultory article, I would say that I have long hoped to see some of the able ornithologists, correspondents of the *Farmer*, take their pens to inform your readers concerning the history of our rarer birds, and the interesting habits of our more common species; and hoping to invade no one's province, I propose, with your permission, Mr. Editor, to offer occasional articles on the birds of New England, noticing briefly many interesting species wholly unknown perhaps to farmers in general, vindicating or censuring the habits, as they seem to deserve, of the better known species; and in general, hope to interest some of the cultivators of the soil in the history of their feathered friends, that so abundantly surround them. J. A. A.

*Springfield, Aug. 1, 1860.*

#### AN INGENIOUS PIECE OF WORK.

Mr. Nicholson, a journeyman carpenter of Philadelphia, has just completed a *fac simile*, in miniature, of the National Washington Monument. The miniature contains 6480 pieces of wood of American trees. It is built on a scale of one-eighth of an inch to a foot, and when completed, it stands five feet eight and three-quarter inches high. The base is composed of 3681 pieces, arranged as a tessellated pavement. The wood, in this portion of the structure, includes white oak, walnut, oak from the frigate Alliance, red cedar and ash. The pantheon is composed of 308 pieces consisting of live oak, walnut, cherry, red cedar, boxwood (from the Paterson farm of New Jersey,) maple, mulberry, buttonwood, elm (treaty elm,) gum, walnut, hackmatack, locust, spruce, plain maple, birdseye maple, paper mulberry, red cedar, poplar, white pine, yellow pine, white oak, live oak, and wood from the charter oak, the frigate Alliance, the ship Constitution, and Fort Du Quesne. The star at the top of the obelisk is made of a piece of the old Independence bell. The whole is most neatly joined, over three years having been occupied with the work. As the model now stands, it carries out the same design in wood as is proposed to be carried out in marble by the erection of the national Washington monument. If the *Scientific American's* definition of ingenuity is right, viz: that it is a "very complicated combination of devices to produce a result that is not very useful," Mr. Nicholson's piece of work is very ingenious.—*Philadelphia Ledger*.

**THE WILD CARROT.**—A Stonington correspondent of the *Homeslead* cautions farmers against the spread of this plant. He says:

"Of all the pests of the soil in this section, and most difficult of extermination, is the wild carrot. It is spreading rapidly through the south-eastern part of this State, infesting the meadows, pastures, and road-sides, each stalk with its head of half a

gill of seed, to be wafted in all directions. It is but three or four years since I first noticed the wild carrot in this section. I find now in whatever direction I may ride, more or less of the wild carrots, sometimes whole fields covered with it. Farmers say that it seems almost impossible to exterminate it, or prevent its spreading."

#### USES AND VALUE OF MUCK.—IV.

##### OF MUCK COMPOSTED WITH BONES.

In spading, and perhaps in plowing, the observing farmer has noticed more than once how rank and luxuriantly, and with what a dark green color plants grow, that have fortunately sprung up in the immediate vicinity of a large bone, deposited there, perhaps years before, by some provident dog, or sent from the farm-house as a nuisance that the inmates were glad to have abated by burying the thing out of sight. It is now partially decayed, having a sort of honey-comb appearance, and through it, and interlacing every part of it, are the delicate rootlets of plants, having travelled some feet, perhaps, in that particular direction to feed upon the phosphate of lime and the phosphoric acid with which the bone abounds. Now here are circumstances over which the farmer may pause, longer than Burns did over the mouse he turned up in his furrow,—and here are suggestions made, and lessons to be learned, which, if patiently attended to, will lead to many happy results; such as rich fields of corn and fruits and grain, fertile meadows and pastures dotted with fat and thrifty cattle, and consequently, liberal profits, and *cash in hand*, the ultimate object of his operations. Here is "the evidence of things not seen," the fact laid bare, that bones *will make plants grow*, provided they come in contact. Is it not, then, the part of wisdom, not only that all which come from the kitchen of the farm-house, be carefully preserved, but that every pains be taken to accumulate it in large quantities, and appropriate it to the advancement of our crops? Suppose this to have been done, and the muck ready for the compost, then the bones must in some manner be brought into a powder or paste; the latter is the best form in which to use them, and they may readily be brought into it, by weighing the bones, and then, to every one hundred pounds of bones, adding fifty pounds of sulphuric acid, the common oil of vitriol of the shops, and costing about three cents a pound by the carboy. If the bones have been ground, half that quantity of acid will be sufficient. Take a half hoghead tub, place it in some convenient spot, and surround it nearly to the top with moist litter or the drier portions of the horse manure heap, and then if the tub leaks during the operation of reducing, the leakings will be saved. First dilute the acid with three times its bulk of water; place the

bones in the tub and turn on one-half of the acid and water. In twenty-four hours afterwards, stir the mass, and if the bones are not all dissolved, pour on more of the acid and water, and so continue to do, until the whole is reduced to a pulp or paste. Another method of accomplishing the same result, is by making a heap of the bones on the barn or other floor; but it is not so safe and economical as the first method we have described.

When this has been affected, dry finely-pulverized muck should be intimately mixed with it, until the whole will be in such a dry state as to enable a person to scatter it with a shovel or by hand, evenly over the pile of muck with which it is intended to be composted. There is no loss in using the sulphuric acid, as it decomposes the silicates (sand) of the soil, forming new elements which are decomposed by the living plants, and are fed on by them. Now, then, the materials all being at hand, the pile may be constructed by a layer of the muck, six inches in thickness, then a sprinkling of the bone-dust scattered evenly over it, and so on, until the materials are all used. This compost we consider in value next to that of muck and barn-manure, and plenty of examples might be cited to sustain this opinion were it necessary. Professor J. P. NORTON, *Elements*, p. 98, says, "Two or three bushels of these dissolved bones, with half the usual quantity of yard manure, are sufficient for an acre. This is, therefore, an exceedingly powerful fertilizer. One reason for its remarkable effect is, that the bones are, by being dissolved, brought into a state of such minute division, that they are easily, and at once available for the plant. A peculiar phosphate of lime is formed, called by chemists a *superphosphate*, which is very soluble; and in addition to this, we have the sulphuric acid, of itself an excellent application to most soils." In gardening, and especially on the light lands commonly used for that purpose, this compost is one of the most convenient to use, quick in its effects upon the plants to which it is applied, and yet permanent in its results. The farmer cannot exercise too much care in this branch of his industry, for none of his labors will more amply reward him, or produce to him more gratifying results, than those which he bestows upon his compost heap of *muck and bones*.

**FARMING AND BOOT-MAKING.**—In giving an account of the late shoemaking strike, the Editor of the *Boston Cultivator* makes the following statement:

"We have in mind a first rate bootmaker that followed the business until his health failed him—his only choice being between an early grave and farming. He somewhat reluctantly chose the latter, and having been brought up on a farm, as

was his wife, was successful, and in the course of ten years, found himself possessed of property worth \$5000, with health improved, and with an apparent lease for a long and happy life amid a large and thriving family. Had his health permitted of his following the employment of boot-making, he would not have abandoned it, and would, probably, have reached life's terminus just about even with the world. Now if he lives to the age of threescore and ten, he will, according to present prospects, possess a real estate worth \$20,000, besides having trained up and educated a large family."

#### ICE WATER.

If the reader is down town or away from home on a hot day, and feels as if it would be perfectly delicious to have a glass of lemonade, soda water or brandy toddy, by all means let him resist the temptation until he gets home, and then take a glass of cool water, a swallow at a time, with a second or two interval between each swallow. Several noteworthy results will most assuredly follow.

After it is all over, you will feel quite as well from a drink of water, as if you had enjoyed a free swig of either of the others.

In ten minutes after you will feel a great deal better.

You will not have been poisoned by the lead or copper which is most generally found in soda water.

You will be richer by six cents, which will be the interest on a dollar for a whole year!

You will not have fallen down dead from the sudden chills which sometimes result from drinking soda, iced water, or toddy, in a hurry.

No well man has any business to eat ices or to drink iced liquids in any shape or form, if he wants to preserve his teeth, protect the tone of his stomach, and guard against sudden inflammation and prolonged dyspepsias. It is enough to make one shudder to see a beautiful young girl sipping scalding coffee or tea at the beginning of a meal, and then close it with a glass of ice water; for at thirty she must either be snagg-toothed, or wear those of the dead or artificial.

Fresh spring or well water is abundantly cool for any drinking purpose whatever. In cities where water is artificially supplied, the case is somewhat different; but even then there is no good excuse for drinking ice water, because, even if the excuse were good in itself, the effects on the stomach and teeth are the same.

Make a bag of thick woollen doubled, lined with muslin; fill it with ice; have in a pitcher an inch or two of water above the faucet, and let this bag of ice be suspended from the cover within two inches of the surface of the water. The ice will melt slowly and keep the water delightfully cool, but not ice cold. A still better effect will be produced if the pitcher is also well enveloped in woollen. Again, water almost as cool as it can be, unless it has ice actually in it, may be had without any ice at all, by enveloping a closed pitcher partly filled with water, with several folds of cotton, linen or bagging, and so arranging it that these folds are kept wet all the time by water dripping from another vessel, on the principle of evaporation.—*Hall's Journal of Health*.

*For the New England Farmer.*

### FARMING AS AN AVOCATION.

**FRIEND BROWN:**—It has been a long time since I have contributed anything to the *Farmer*, though I have been a constant reader, and, I trust, have read with profit. I look forward with much interest to your monthly visits, and am sure ever to find something that is new and much that is valuable.

The profitableness of farming has been fully discussed in the *Farmer*, but it is still a mooted question. Much may be said, both for and against. Science has much to do with farming, but farming is, by no means, to be ranked among the certain sciences. The modes of culture—the methods of procedure, are almost as numerous as the operators. In farming, as in other vocations, while one man will get rich, another with equal zeal and industry, and under equally favorable circumstances, will become poor.

It is safe to conclude, then, that in husbandry as in government, that system which is best administered is best, and that Pope's dictum, whose orthodoxy, as applied to matters of religion, may well be questioned, is true when applied to the tillers of the soil:

"'Bout modes of faith let graceless scoldots fight  
His can't be wrong, whose life is in the right."

There is a great deal of thrifty farming still, even in New England. Agricultural societies and papers have done much by diffusing information and awaking a spirit of inquiry. Multitudes have got out of the old ruts and are driving on prosperously in the highway to thrift. But the masses are still plodding along in the old paths which their fathers trod.

The prejudice against "book-farming" has not been entirely removed. Multitudes scratch the surface of their grounds, instead of plowing it; plant four acres, when they should plant but one; put a bushel of manure *in the hill*, when they should spread a cart-load evenly over the *whole surface*; manure for the crop, when they should manure for the land and the crops; look for immediate returns, when they should rather look and labor for the future, embracing five, ten or twenty years; dodging about among stumps, rocks and bushes after a scanty crop of poor grass when by a little resolution, and one-half the labor, they might enjoy the pleasure of cutting a good crop of good grass from a smooth surface; plunging annually into a quagmire and tugging and floundering among bogs to secure a few loads of sage grass, so sour as to ruin the dispositions of their cattle, to say nothing of their physical condition; when this same swamp might and should be made the most valuable and productive land on the farm, and contribute largely to the improvement of all the rest; and so on to the end of the chapter, showing that the work of improvement is not all done yet. But the leaven is at work, and I hope and trust that you and your coadjutors, who are diffusing your light broadcast over this fair land, will not be weary in well-doing.

The farming prospects hereabouts are decidedly good. Of grass there is an unusually large crop. Winter grain about middling. Spring grain uncommonly good. Wheat and oats never looked better. By the way, wheat is becoming a staple in this region. Thirty years ago it was as rare to

see growing wheat, as now it is to see flax. Now most of the farms in this valley have a plat of either winter and spring wheat. It is found that wheat may be grown as easily and surely as rye, and with about double the profit. Land that will produce good corn will bear wheat.

Apples are abundant; and what is remarkably gratifying is the fact that our old enemies, the caterpillars, have entirely disappeared. I have not seen one this season, and the webworm, which for a few seasons past has made such terrible havoc, has also left us, and those disgusting fillibusters, the cut-worms or the army worms, have likewise taken offense and left us, mayhap to turn up in Central America about this time.

Yours, &c.,

R. B. H.

*Amherst, Mass., 1860.*

### A NEW MOWING MACHINE.

A few days since, Mr. O. HUSSEY, of Baltimore, sent us a mowing machine of a new and peculiar construction for trial. It has two driving wheels, each about two feet high, is exceedingly compact and simple, having but very little machinery about it, the whole machine occupying a space only about three feet by two. It is intended for one horse, and has a cut of three feet.

On the first day of August, Mr. Hussey came to our farm to set it in motion, and in a few minutes it was ready, and performing its duty in the field. At first a ten hundred horse was attached to it, and driven round an acre three or four times. Then an *eight* hundred horse was hitched to it, and the acre finished. The draft did not seem too heavy for the lightest horse, and the grass was cut well, although badly lodged in some places, and quite wet with the rain of the previous day. The ground was meadow, and rather soft. The trial was entirely satisfactory to Mr. H., and gratifying to the spectators. The machine had never been used before, with the exception of a *thirty* minutes use when first put together. Its weight is about 450 pounds, and Mr. Hussey thinks it can be sold when it has received some improvements suggested by this trial, for \$75, and perhaps a little less.

There is a steady advance in the ability and value of this important labor-saving machine. Some of the early ones had wheels, and cogs and metal enough in a single one to make two, or three of this, and then were without half its effective power. The idea that a good mower must weigh seven or eight hundred pounds has gradually given way to the practical tests of the machine, and, at the same time that they have been made lighter, friction has been reduced so that only about one-half the power to draw them is now required. With two or three changes in Mr. Hussey's machine, unimportant in cost, we think it will compare favorably with the best in our knowledge.



### THE WOOL CROP OF 1860.

The *Shipping List* of the 8th inst., in speaking of the wool crop, says:—

We have several times alluded to the high prices paid for the new clip in the producing districts, and the following from Walter Brown's New York Circular of August 1, confirms our statements made at the time, as follows:—"The month of July has been characterized by an unprecedented competition in the producing districts; so great has been the eagerness among buyers to secure a portion of the clip, that in many instances far above the real value of the wool was paid, and in some particular cases, several cents per pound higher than the ruling prices in the Eastern markets for the same grades. This irregularity arises from the disposition on the part of some agents to secure their commissions, regardless of the interests of their employers; very much to the injury and disadvantage of more judicious purchasers. It also operates directly against the more liberal and enterprising growers, for these variations are almost always on lots of low and ill-bred wools. From all the information we have obtained, it would appear, that the average price which has been paid for the clip throughout the country will range from 1½ to 2c per lb. above that of 1859. In this State the average is thought to be fully 2c above last year, and in Ohio the excess is quite as great. In some localities wool was picked up in smaller lots at prices quite as low as last season, and in some very early districts, perhaps even lower. It remains to be seen whether or not the markets will justify this advance. To yield our dealers even a fair commission for handling the wool, the ruling figures must be from 3 to 5c above the average prices obtained last season. During the month, prices of such desirable domestic wools as remained in market, both fleece and pulled, advanced from 2 to 3c per lb., and with very few exceptions these lots were taken by consumers; and about the same advance on last year's prices has also been realized on some lots of new wool. As the prospects for fine crops throughout the entire West are very flattering, and the promises for a good Fall and Spring trade quite encouraging, and as our Woollen Mills are all running, we may look for an active season in the raw material. The fact that so many of our manufacturers were willing to go forward to the country and pay high prices for a year or a half a year's stock of wool, is an evidence of their confidence in the future demand for their goods, which, though somewhat at variance with the impression which has heretofore recently prevailed as to the remunerating character of that important branch of industry, is nevertheless very gratifying."

**THE CATTLE DISEASE.**—Inquiries are frequently made of us in relation to the cattle disease; as to what its present condition is. We have the pleasure to state that very few new cases are reported to the Commissioners, and that the probability is that there will not be many during the summer months. We learn, from various sources, that where the disease has raged in Europe,

it shows itself but little during the summer season. It will be exceedingly fortunate for us if it does not assume a new type as the cold weather approaches.

The Hon. Adam Ferguson, a distinguished farmer at Woodhull, Canada West, in writing to Mr. Secretary Johnson, of the N. Y. State Society, says: "The Massachusetts Legislature have done themselves great credit; and the trading public are greatly indebted to you all, delegates, &c. My friend, D. Henderson, is professor of Pathology in the University of Edinburgh, and is in high medical practice. He assured me that *Aconite* was used as a specific, if given in time, before the lungs were seriously affected, and that he had saved scores of valuable cows." A watchful prudence, we trust, will prompt all to be careful, however little they think they may be exposed.

### EXTRACTS AND REPLIES.

#### THE CROPS IN WINDSOR COUNTY, VERMONT.

I frequently see accounts of the crops in various sections of the country, and I thought some of your readers might be interested to hear about the crops, &c., in Vermont, especially in Windsor county. As it was very dry through the months of April and May, people generally anticipated a light crop of hay and grains, but the wet weather through June and July has allayed our fears. Hay, so far as I have had opportunity to know in this section, will be an average. We are now in the midst of our haying. Wheat, oats and barley promise good crops. Corn and potatoes look well. We shall get a larger crop of fruit than we have for several years. Apple and plum trees are well loaded and an abundance of cherries. We have frequent rains which keep the ground moist, so that vegetation comes forward very rapidly and retards haying, but the grass is green and growing yet.

Can you, or any of your correspondents, inform me where the genuine Norway Rag Scythe Stone can be obtained, and at what price per dozen?

Andover, Vt., July 30, 1860.

G. W. PUTNAM.

**REMARKS.**—We have inquired of Nourse & Co. for the Rag Stone, but they have none on hand at present. The price is from 75 cents to one dollar per dozen.

#### CULTURE OF WHEAT.

Wheat will grow in Massachusetts as well as elsewhere. Of this I had ocular demonstration on the grounds of Gen. Wm. SUTTON, bordering on Aborn Street, this morning, Aug. 1. His crop now stands full five feet high on an average, with heads as plump and well-filled as can be desired. No blight or insects of any kind about it. Should nothing occur to injure the crop, I should say the prospect was fair for thirty bushels to the acre. The seed was raised on the same land last year from some that grew in California. The lesson I draw from this culture is, be sure to obtain good seed, and you can be certain of a good crop. If any one doubts this, let them examine the field.

Aug. 1, 1860.

P.

#### MANURES.

Will you inform me what is the best preparation sold for the manuring of dwarf pears, peaches, cherries, grapes and strawberries? and is it advisable to use any one article for the various kinds named above?

Aug. 2, 1860.

D. W. H.

**REMARKS.**—We cannot inform "D. W. H." as to what special manure is best suited to the particular plants he names. The best manure is undoubtedly the

manure of the stable or barn. A good dressing of ashes will be excellent for them, and especially so for the grapes. The peach does not require high manuring.

#### A FINE CROP OF GRASS—FOWL-MEADOW.

About the middle of August last I plowed one acre and a quarter of rather low land, and spread on, after rolling and harrowing, not a large quantity of well composted manure, then harrowed and seeded liberally with herds-grass and red-top, and then bushed it in smoothly. It came up and looked finely last fall, and this day, July 10, I have cut not less than three tons of first quality hay on it, where last year it was hardly worth cutting. Now I intend to plow another acre adjoining, but lower and wetter, and think of seeding with fowl meadow, and wish to inquire what other grasses will do best to mix with it? F. K. CRAGIN.

Woburn, Mass., July 24, 1860.

REMARKS.—If you mix other grasses, we know of nothing better than herds grass and red top. But why mix other grasses with the fowl meadow? The latter will cover the ground, bring you a valuable crop and continue itself for many years, if you allow a portion of it to ripen and shed its seed upon the ground.

#### SEASON AND CROPS IN NEW YORK.

The season has been favorable for farmers; though it has been rather dry, the crops look promising. The wheat is being harvested and we hear very little of the midge—all the hoed crops look well. Peaches are a failure in some portions of western New York, but in some localities a good crop. Apples a full crop. Pears abundant. All the small fruits have fruited and are fruiting abundantly, and farmers are surrounding themselves with these cheap comforts, which tickle the palate and "make glad the heart of man."

Lyons Nursery, N. Y., 1860.

SILVESTER.

#### THE BAROMETER.

Have you a barometer in your house, or do you know of any one that has (farmers, of course,) and how much dependence can be placed on them in haying time? How good a barometer is Mr. T. R. Timby's?

WILLIAM H. SAVAGE.

Harvard, Mass., July, 1860.

REMARKS.—We have not consulted the barometer in regard to farming operations, and have no acquaintance with any person who has. We have seen articles in the newspapers, purporting to be from farmers, that speak of the barometer as of great value to the farmer, and especially so in haying time.

#### THE GREAT COMING GRAIN CROPS.

The London *Times* forebodes trouble in England, owing to bad weather, and consequent short crops. The prospect of the grain crops in France is also said to be unpromising. On the other hand, the cereal crops in the United States and Canada never promised better. A larger crop of wheat than we ever had before, by perhaps one-fourth, is now secured, or in the process of harvesting. The crops of hay and oats are also large, and the promise of the king of our cereals—Indian corn—was never better. Nothing short of a large export demand can keep the price of this abundant cereal from falling below remuneration to the grower. Of the last year's crop, it is said that the large farm cribs of Illinois are still nearly full of last year's corn, yet the receipts at Chicago have averaged over 100,000 bushels a day from the Illinois canals and railroads through the season.

The wheat crop of Western New York last year was of better quality and yielded more to the acre than it had done before in twenty years. Thus encouraged by the exit of the midge, a much larger breadth of wheat was sown last fall, and a glorious crop, unspoiled by the insect, is now being well secured.

The effect of such increased cereal crops is not only to encourage and enrich the farmer, but to give life to trade generally, and to the shipping interest in particular, which has been so long depressed, both on the ocean and the lakes. In the region of Lake Michigan in the fall of 1858, vessels bought salt and coal from Buffalo for ballast, gratis, and then had to load back with wheat at three cents a bushel; now the freight on corn and wheat from Chicago and Milwaukee to Buffalo, is about seven cents a bushel, with the prospect of advancing rates when the new wheat crop comes in, and the lake risks are increased.—N. Y. Times.

#### A NEW TRIAL OF AN OLD MACHINE.

On Friday, Aug. 3d, we had an opportunity of looking at the operations of one of Nourse, Mason & Co.'s *Ketchum Mowing Machines*, on the farm of J. B. SHURTLEFF, Esq., of North Chelsea, which lies about four miles from Boston. The field was favorable for the work, and the grass standing upon it varying from one and a half to two tons per acre. Before any other person had arrived upon the spot we paced the piece to be cut with as much accuracy as possible, and found it to contain one hundred and eighty rods, or one acre and one-eighth, and this was cut admirably, in *twenty-seven minutes*, or at the rate of an acre in *twenty-four minutes*! The weather was excessively hot and close. The same team, machine and driver operated upon an adjoining piece of land the day before, which was cool, with a fresh, elastic breeze, and we were assured by Mr. Shurtleff, and several of the bystanders, that an acre was cut, and the work handsomely done, in *fifteen minutes*! The knife-bar was six feet long, so that the swath averaged about five feet and six inches. The horses, a noble pair belonging to the farm, started off on a brisk walk, and so continued until the whole piece was cut, pausing only a moment, twice, to clear a rock or some other obstruction.

This item of mowing is one of some consequence to Mr. Shurtleff, as he will cut some *two hundred and fifty tons of hay this year*, will thresh out between *four and five hundred bushels of rye*, and sell *one hundred thousand heads of cabbages*, to say nothing of a world of other stuff that the people in the city which he overlooks hunger for every day.

Our stay was too brief for visiting his stables, and various other parts of the farm, and looking into the details of his extensive operations. That pleasure is left for a future opportunity, which we

hope soon to improve, and then will tell the reader what we see and hear.

Some of the stereotyped anti-progressionists in our midst would find profit in visiting Mr. Shartlett's farm, if they would listen to his words while "toting" them over his broad acres in his easy wagon!

#### BORING ARTESIAN WELLS.

The greatest bore of any artesian well in the world, is said to be that just completed in Birmingham, England. The diameter fixed was the unprecedented one of twenty-six inches, and was accomplished by new and improved machinery. The machine thus employed is described as consisting of a very heavy bar of cast iron, armed at its lower end with a number of cutting chisels, and suspended by a rope, which was in connection with a steam engine at the mouth of the well. As it is wrought up and down by the engine, the tension of the rope gives a circular movement to the bar of iron sufficient to vary the position of the chisels at each stroke of the instrument. The apparatus of some well-borers has around the chisels a cylindrical chamber, which by means of single valves, receives and retains the abraded portions of the rock. This chamber, which would not hold many pints, had, of course, to be raised to the surface at short intervals for the purpose of being emptied of the debris, thus involving much loss of time. But, by means of the improved machine, this operation is performed in a very different way. A cylinder is employed, eight or nine inches in diameter, having a piston fitted to it so as to form a pump, with one valve at the piston and another at the bottom of the cylinder. When the pump sinks to the bottom of the well, the piston, by its own gravity, sinks also to the bottom, and suddenly reversing the engine and drawing up the sucker, not only is the crushed debris drawn up, but also pieces of rock, six or eight inches in diameter. By this means, six or seven tons of matter are drawn up per hour.

*For the New England Farmer.*

#### PLUMS--COE'S GOLDEN DROP.

MR. EDITOR:—Having had some conversation with you respecting the plum culture, I send you herewith a specimen of what my plums promise to be the present season. It is a small branch, broken by the weight of the fruit. You will perceive that the curculio has made no impression upon it; and it does not look as though this most delicious of all fruits (in my estimation,) is in any particular danger of "subsiding," in this region, as some croakers have predicted. This specimen is a fair sample of two trees of the kind (Coe's Golden Drop,) in my garden; and I have other varieties equally promising.

Last year I had very few plums on account of the curculio; but I took especial care to shake off the bitten fruit and bury it "too deep for resurrection," before the maggot left it to go into the ground. This season, very little of the fruit has been bitten by the curculio. I believe this pest can be eradicated, provided fruit-growers will act in concert, and take sufficient care to destroy the punctured fruit for a few years in succession.

As to that other strange pest of the plum tree, the black wart, I know of no better way of overcoming it than the one I have pursued—namely, by applying the knife freely whenever and wherever it makes its appearance. I have thus far been able to keep it down, though at the expense of disfiguring some of the branches of my trees. I am inclined to believe that it is caused by some insect that bites through the bark and deposits an egg, which, turning to a maggot, poisons the sap, and causes it to exude and form a fungus around the spot. By cutting into the fungus or wart, you will almost always find a little worm, and, though I am not fully satisfied on the point, I think the theory is a plausible one that the worm does the mischief. E. C. P.

*Somerville, Aug., 1860.*

REMARKS.—Nine beautiful specimens of *Coe's Golden Drop* on a single twig scarcely quarter of an inch in diameter—more fruit than we have on three good-sized trees.

*For the New England Farmer.*

#### TWADDLES AND WADDLES ON AGRICULTURAL EDUCATION.

[Continued from page 411.]

*Waddles.*—The dead languages and the higher mathematics certainly would be useful to some classes of pupils as much as agriculture would be to others. Each should study, as well as practicable, what may be called into requisition in after life, and not what would be unlikely to be. Nothing hardly could be more improper than forcing a complete system of agriculture into our schools, as has been recommended—not only into those of the rural districts, but into those of our large towns and cities, and among children of both sexes—which would not only embrace chemistry, botany and vegetable physiology, but also the "raising of stock!" One gentleman of the Board of Agriculture, (in his undefined zeal to do something for the cause,) gave it as his opinion, that the question, "What was the best *bull*," was very proper to introduce into a promiscuous school of children! These studies are useful, but they have their time and place. It might be equally proper to teach them from the *pulpit*; for if there is much that is useless taught in our common schools, no candid and unprejudiced mind will deny that the former institution is less open to the same objection.

*Twaddles.*—Shocking! But certainly you can have no objection to the schools teaching how plants grow and are fed, for our life as a people depends upon this knowledge.

*W.*—No, I have not. Some attention should be given to the subject, by those who desire it, and such is in fact the case now. But I object, as before hinted, to shaping the minds of youth in our common schools either to this or that calling, exclusive of others. Probably no one of the Board of Agriculture would submit to it in regard to his own children. It is a matter of domestic concern.

*T.*—Bless you, Mr. Waddles, they do so in England, and see what crops they raise!

*W.*—True; but in this republican country the

government are not permitted to exercise that control over the laboring classes that it does there. England has a queen, and an order of nobility; but the practical farmer is far from being comprised in this latter department; and their agricultural schools are the ordinary schools for the farming class, who expect to be forever so, and trained expressly for that calling, with no hope or hardly the bare possibility of rising into the dignity of small land-holders, or of citizenship. I ask you if the true object of agriculture is fulfilled in a country like that, where, though they *may* get greater crops than we do in some productions, these crops, by the stern forcing system of large capitalists, are wrung from the bodies of the thousands of half-housed and half-famished farm laborers? English crops, produced (shall I say by human bone-manure?) as they are, ought perhaps to be regarded as disreputable to the British Isles. England, probably, has more to learn of us than we of her, not only in agriculture, but in politics and law, and perhaps in all the industrial pursuits. English farming is not so much "capital and science," as capital and oppression.

T.—But we propose here to get the science without the oppression. You are probably aware that a committee of gentlemen of the Board of Agriculture have given it as their opinion, that if a system of agricultural education were introduced into our common schools, in twenty years "the productive value of the lands throughout the whole State would be doubled."

W.—I am; and I have great respect for the gentlemen. But it is to be *very much questioned* whether the enlightened practical farmers of the State would affirmatively respond to such an opinion. Whoever has heard of the eccentric merchant of Boston, who, one bright morning before breakfast, made two thousand dollars by *marking all his goods higher*, may have the story brought to mind.

T.—That's a joke.

W.—Isn't the other?

T.—That's to be seen. But, Mr. Waddles, just think of the millions of dollars added to our agricultural products if we were to succeed in raising the enormous crops they do in England. You must admit that now the difference is a loss on our part.

W.—Not at all. We gain it in the freedom and happiness of our agricultural population. If farming is ennobled anywhere, it is and must be in America. If the mass of our farmers had an annual rent which must be paid for their farms, like the tenants of England, they might be hard enough to force greater crops. But fortunately they are under no such necessity. Yet of what crops they do raise, they take enough to *supply their own wants*, which cannot be so well said of the tillers of the soil whose "science in husbandry" we are required to emulate. Surely, if England is the land of bountiful harvests and fat cattle, it is also the land of lean and disfranchised laborers. Probably agriculture may be better taught to a few in Britain than in America; but with what we do teach here, we also inculcate the *science of humanity*, and the divine maxim, that "The laborer is worthy of his hire."

T.—True. No one should shut his eyes to the many laboring poor in England, and throughout Europe; but then we should only copy the good.

W.—But of this we feel no necessity. If our general system of agriculture is more productive of happiness than theirs, we may not be very ready to copy from them; though, perhaps, there are no important agricultural experiments instituted in that country, which do not have more or less influence in this. But the ill-defined idea of establishing an agricultural college from foreign hints, with a view of advancing agriculture into one of the learned professions (considering the little harmony and unity among those already counted *learned*), has always struck me as tending to the ridiculous. And if the working farmers of Massachusetts were and are not similarly impressed, the enterprises already started with great names would not have suffered an early blight. When they ask for manure, will you give them a college? Scholars always make a foolish piece of work in trying to improve that which is already well enough; and hence it is that the common sense of the people will not respond to them. They would "paint the lily," and "throw a perfume on the violet." And they are too apt to think that a man who springs up like a Bartlett or Seckel pear, and can bear good fruit in any soil, is a fit subject for their influence. Washington and Franklin, who belonged to no learned profession, will be remembered when Adams and Jefferson are forgotten. Very much depends upon the character of the man himself, as to his success, whether in agriculture, or in any other business.

T.—Yes, sir; I readily grant this; but the American farmer's knowledge, although sufficient in quantity, is not systematized, and our agricultural college or schools, I am quite hopeful, would supply this great defect. Besides, such an institution would give tone and character to the agriculture of the State, and, properly managed, would greatly redound to its honor.

W.—I do not readily perceive how such a school could systematize (rather a vague term,) our knowledge, for it could only bring good sense to bear on what is generally known from year to year, and this every sensible man can do himself. Much, however, would depend upon the character of the teachers. If they, in fact, were wiser than the best farmers, they might accomplish something; but it is not to be supposed that practically they would be. If they were merely learned in chemistry, and the collateral branches of agriculture, merely theoretical, speculative men, and intended to try experiments, then their operations would be very expensive, and of doubtful utility, and they could not be regarded as representing agriculture in its best eclectic attitude. If they inculcated what they thought the most scientific for the time being, then their teachings (so freaky and delusive has agriculture occasionally shown itself ever since the ground was cursed for Adam's sake!) would be in danger of becoming *systematized ignorance*. They undoubtedly would do something, and the probability is, that some leading, ambitious spirit among them would seize the reins, intimidate the rest by the crack of his whip, and—"go it blindly." Prof. Porter's ideal extravaganzas of uniting the hydrogen of the ocean with the nitrogen of the atmosphere, to form a universal, inexhaustible, omnipresent fertilizer, might not be realized; the potato and cattle diseases would probably fare no worse, and

the curculio, and all the mischievous members of entomology, would very likely commit their ravages as if in utter ignorance of such an institution.

T.—Not at all, Mr. Waddles. I should anticipate a good degree of harmony. We hear nothing of the kind in the European schools.

W.—But we know that the scientific men of Europe do not agree upon those very matters which an agricultural college ought to teach. Our agricultural professors, perhaps, would be as wise as our present Board of Agriculture; no one, probably, thinks they would be wiser; for they are the most eminent men in their calling, selected from all parts of the State. Yet does our Board do everything harmoniously and satisfactorily? It is not to be expected, though a hindrance. The only thing which I ever heard of their being unanimous about, was upon the resolution to petition the Legislature to introduce a system of agriculture into our common schools. So said one paper, at least. The Secretary's Report says, "almost" unanimous. Yet with all this unanimity, only two of them appeared to discuss the subject at the Legislative Agricultural Meetings. And that's the last I have heard of the matter. On the whole, I am inclined to believe that a faculty of professors would not be able to permanently advance the cause of agriculture, and would not throw more light upon the subject of vegetation than some of our best farmers—so difficult is it to find and tread a path not already beaten.

T.—Well, then, I must say it would not be properly managed. They ought simply to teach what are regarded as the best methods of soil culture.

W.—That is, the system well known.

T.—Nothing more nor less.

W.—But who would go, or send a boy to a school to learn that which is usually known and practiced among farmers? A purely agricultural college on this basis, would fail for want of patronage, as a lad would go on to a well-managed farm and earn his livelihood. If of a general, scientific character, scholars might attend, but not to learn farming, as they have at the Michigan Agricultural College.

T.—But I proceed upon the presumption that it be properly instituted, and well managed. What that would be, I frankly confess I can't at present say.

W.—Again, Mr. Twaddles, I am inclined to the belief that such an institution would be more *political* than agricultural, especially if endowed by the State, with the Governor and Council holding the appointing power. Would such an institution give tone and character to agriculture in Massachusetts? And provided it were all its friends could wish, and was not, as some think it would be, a useless expenditure to the State; that it fulfilled its mission, and was an honor to old Massachusetts; would you not feel prouder to point out to a foreigner, a hardy, independent, well fed, well clothed and well housed yeomanry, than to a stupendous and successful agricultural college?

T.—Certainly, I should; but I would prefer to do both. Yet how do you propose to educate farmers—not by merely drudging on the soil—toiling, sweating, eating and sleeping—all hand-work, and no head-work?

W.—By reading, reflection, in connection with the farm, and by seeing what others have done. Surely, no man need be at a loss for books and papers. In Great Britain, where it is said not so many agricultural journals are in circulation annually as are struck off by a single press here, farm schools or colleges may be more important. With so many facilities as we have here in Massachusetts for improvement in the cultivation of the soil, I should consider the establishment of an agricultural college as an act of supererogation—merely a fifth wheel to a coach, upon which some of the larger insects would fasten, and marvel at the dust they raised. Men working their own farms would shout in derision at it, and half of the agricultural journals would wage a perpetual war against it and its management. The animadversions upon the Patent Office doings and Reports, in this department, may give us some hints. And here I may observe, for want of a better opportunity, that M. Lavergne freely admits, in spite of the agricultural schools of France, the superiority of British husbandry.

T.—Well, you can think as you choose; but I still go for more head-work, and less hand-work.

W.—Yes; but knowledge must be executed. Much head-work is too apt to make mere fancy farmers, and as you must know, has been the ruin of many. The Board of Agriculture could point to you instances of such, perhaps in its own circle. A knowledge of chemistry, botany and geology, will not hoe one's corn, or dig his potatoes. Then again, when a farmer becomes learned and somewhat refined, he is very apt to leave his manure fork to harder muscles and coarser brains.

T.—Yes, sir, so he is; and that's the reason why we need to make agriculture more attractive, by some method or other, to keep the young farmers at home.

W.—Pray, how can you talk so when your own example has been against it? Some men will make farmers of some of their sons, but would you do it? I question whether there is a single member of the Board of Agriculture that would forcibly encourage a bright boy of his to engage in farming; and perhaps he thinks there is no necessity of it. You know very well, that an ambitious lad who has been reared on a farm, longs to quit it, and go out into the varied world, and try his fortune. It is all very well. Such as he may return some time or other, with capital and contentment to remain. But if they do not, the presumption is that they choose to remain away. Then there are some who had rather remain at home, having no taste to battle for a livelihood in the checkered throng, or to become a merchant, minister, or tin-peddler.

T.—But if we educate the farmer as we do some other classes, the ambition of nearly all would be to remain in agriculture. Why should not the farmer know as much as the clergyman?

W.—He certainly does of his calling, and may have as much native sense. But an extended rudimentary education will not save young farmers where the certainty of a life of hard labor is before them; and if it did, what would become of all the educated farmers? Learned professions are apt to be overstocked.

T.—Go to the West, on the new lands.

W.—Yes; land is too dear, and rapidly becoming otherwise occupied in Massachusetts for them;

but there they might increase too fast for their own advantage, and the profitable sale of their crops. So there is some danger in this line of argument. Now I go for a free egress and ingress in regard to agriculture; and I am inclined to believe that it will well regulate itself in all its important relations, and that no one need feel alarmed that competent hands will not be found to till the earth. But you perceive this subject is endless.

*T.*—Well, *your* plan, so far as study is concerned, ought to be designated, "Farming made Easy!"

*W.*—Thank you for the honor. So important a calling in the progress of civilization ought to be made easy, not complicated; and blessed is the man who confines agriculture to the fewest simple rules, so that the honest, industrious young man, with comparatively small means, who intends to pursue it, may not be obliged to labor through a term of two or three years of misty and fallible science before he can engage respectably and profitably in that universal labor calculated to insure his happiness and feed increasing millions.

*Oak Cliff, on the Mystic, July, 1860.*

#### HORNLESS CATTLE.

A correspondent of the *Rural New-Yorker* closes a strong commendation of Polled Breeds with the following paragraph.

Some few acquaintances have suffered utility to take the place of horns amongst the cattle, and are rejoicing at the progress in their change of fancy, as they can see beauties in good cattle without horns. One yard confines together within an area of less than 50 by 80 feet, well sheltered and watered, seven hornless cows and heifers, and sixty valuable Cotswolds, that would not be suffered for a moment to be in like condition if the cattle had horns. They are harmless, social and peaceable, as if all were sheep, and the owner frequently passes amongst them in the dark without fear of running upon even a "short horn," and feels quite sure none of them will die in the spring with the "Horn-ail." His feed boxes are so constructed, that a cow or sheep cannot get the others' fodder, although within the same inclosure. His judgment and fancy have become so bewildered by their smooth, innocent, harmless-looking heads, that he thinks there is not so much beauty and value in any other seven cattle, of the same age, belonging to any other yard in town. But enough. I wait to learn if any body can say sufficient against well-bred "Moolys" to subject them to any real disrepute whatever.

**WOOL TRADE IN MICHIGAN.**—It is stated in the Detroit papers that the clip of wool for this year will exceed that of last year by about a quarter of a million of pounds. Last year's clip was estimated at 3,000,000 pounds, and allowing the clip to be this year three and a quarter millions of pounds, the income of the State will be about a million and a half of dollars. The gain to the State by the increased production and the increase of price is estimated at one hundred and ninety million dollars.

*For the New England Farmer.*

#### WINTER WHEAT.

**MR. EDITOR:**—It would be very interesting to know the general success of those farmers of New England who have been raising winter wheat the past season. Abundant crops must have been secured, judging from the season which has been so favorable to all cereals in your region. The success of one farmer should certainly stimulate another, and I know of no better mode of communicating it than through the medium of your valuable paper. To those who doubt, it may induce them to begin, and to those who may be indifferent, it might prove a spur to their negligence, for they all believe, or ought to, that it should be one of the most important farm crops of the New England husbandman. No farmer among you should allow himself to buy a barrel of Western flour. He can raise wheat for one dollar a bushel, or as cheap as he can raise a bushel of rye. Four bushels of wheat is equal to a barrel of flour for his family, and should there not be mills to bolt so close, wheat meal is far more healthy for his family. Perhaps some of your dyspeptic readers can answer.

Take that piece of mowing field that needs to be turned over, salt your wheat in pickle twelve hours, roll it in ashes or lime, and get it in the last week in August or first week in September, as deep as you can, to insure a good root, which makes it doubly secure against winter kill, and the farmer will be as sure of this crop as he is of his winter rye. These refreshing rains are preparing an excellent fallow or second crop for plowing in. Again, Mr. Editor, I want your farmers to tell us what they are doing with winter wheat.

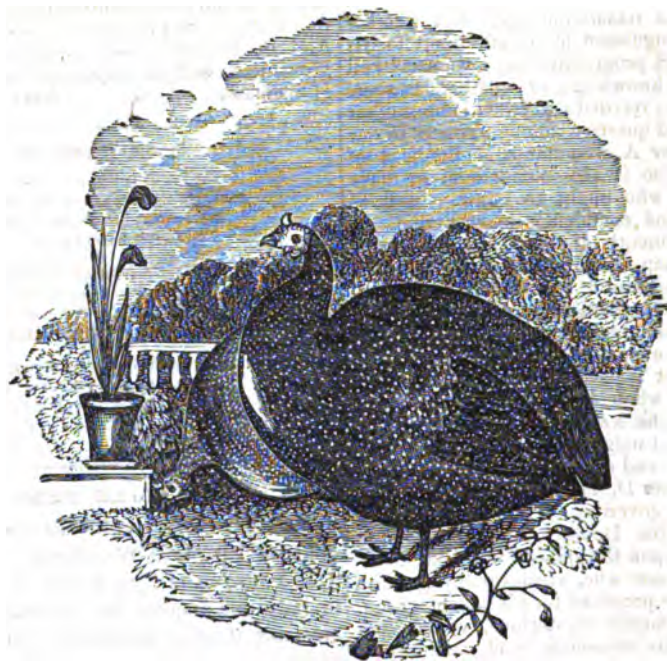
**H. POOR.**

*Brooklyn, L. I., Aug., 1860.*

**REMARKS.**—It affords us sincere pleasure to state to our zealous correspondent that his repeated promptings, or *something else*, have resulted in numerous fields of as fine looking wheat as we ever saw, in various parts of New England. It is now, August 9, being harvested without any sign of midge, mildew, or anything else to lessen its value.

**THE SOUND OF GROWING CORN.**—Did you ever hear corn grow? You have probably heard the remark, "our corn grows so fast that you can hear it." That is supposed, by people who don't know, to be a figure of speech only; but the remark cut here is a literal fact. Go into one of these "bottom" corn-fields forty or fifty rods on a warm July day, or August night, when a bright moon is up (for vegetation grows faster in moonlight than in darkness,) and a few hours after a heavy shower that has fairly wet the earth, and waked up the drowsy corn to its influences, and as the main stalk stretches and swells in its new strength up through the contracted lips of the upper blades, they crack and burst around you like the stifled reports of ten thousand rifles! That corn field will be some inches higher at sunrise the next morning than at the last sundown. There is no mistake about it. *We have heard corn grow*, many a time, and so every farmer along in the Sciota valley will tell you.—*Corres. N. Y. World.*





THE GUINEA HEN.

The plumage of this bird is singularly beautiful, being spangled over with an infinity of white spots on a black ground, shaded with grey and brown. The spots vary from the size of a pea to extreme minuteness. Occasionally the black and white change places, causing the bird to appear as if covered with a net-work of lace.

Of all known birds, this, perhaps, is the most prolific of eggs. Week after week, and month after month, see little or no intermission of the daily deposit.

A Bantam hen is the best mother, being lighter, and less likely to injure the eggs, by treading on them, than a full-sized fowl. She will well cover nine eggs, and incubation will last about a month. The young are excessively pretty. When first hatched, they are so strong and active, as to appear not to require the attention really necessary to rear them. Almost as soon as they are dry from the moisture of the egg, they will peck each other's toes, as if supposing them to be worms, will scramble with each other for a crumb of bread, and will domineer over any little Bantam, or chicken, that may have been brought off in the same clutch with themselves. No one, who did not know, would guess from their appearance, of what species of bird they were the offspring. Their

orange-red bills and legs, and the dark, Zebra-like stripes with which they are regularly marked from head to tail, bear no traces of the speckled plumage of their parents.

When designed for the table, they must be killed before coming to maturity, as the flesh then becomes tough and dry.

By their continual clamor and watchful nature, they are useful in protecting the other poultry from the hovering hawks.

**CURIOUS ALLEGED DISCOVERY IN FLORICULTURE.**—It is said that Mayor Tiemann, at his paint factory in Manhattanville, has accidentally made a discovery which threatens to revolutionize floriculture. One of the factory hands having thrown some liquid green paint of a particular kind on a flower-bed occupied by white anemones, the flowers have since made their appearance with petals as green as grass. The paint had in it a peculiar and very penetrating chemical mixture, which Mr. Tiemann has since applied with other colors, to other plants, annual, biennial, and of the shrub kind—the result being invariably that the flowers so watered took the hue of the liquid deposited at their roots. By commencing experiments early next year, during seed time, and applying different colors, we shall no doubt soon be enabled to “paint the lily,” which was Solomon's ambition.—*N. Y. Tribune.*



*For the New England Farmer.*

### ADVANCE OR RETREAT?

MR. EDITOR:—It is admitted by all, I believe, that we live in a remarkable age. But whether our age be distinguished above all others for its advancement and progressive improvement in all departments of knowledge, or whether, in some respects, we have receded and fallen behind other ages, is a mooted question among farmers in our vicinity. Farmer A, who stands at the head of the alphabet, who is the oldest man we have among us, and who ought to know as well as others, boldly and confidently asserts, that our age is more eminently distinguished for shame and humbugs, than for any thing else. He says, that his great progenitor and namesake, Adam, exhibited more real scientific knowledge in giving names to the animal creation, than is now possessed by any one man on the face of the globe; and, in fact, that it is quite doubtful whether mankind, on the whole, have made any great proficiency in scientific knowledge. Farmers B and C, his two nearest neighbors, and equally venerable for their age and sagacity, coincide with him in opinion. Farmer D, like Wouter Van Twiller, a former Dutch governor of the State of New York, surnamed the Doubter, is not prepared to give an opinion upon the subject, but, like his illustrious predecessor, who, whenever any question of importance was proposed for his consideration, would put on a mighty mysterious, vacant kind of look, shake his capacious head, and having smoked for five minutes with redoubled earnestness, sagely observe, that "he had his doubts about the matter." But D is not the only doubter amongst us. There are others who, if they be not doubters, are double-minded. They have no decided opinion of their own; but they sail with the current of public sentiment in their neighborhood; and perhaps, as soon as they have given an opinion, they immediately vote the opposite.

Without pursuing this train of remarks further, it does appear to me, that there is a straight forward and progressive course; and that there is no room for doubt, for dogmatism, or for retrogression. In every department of knowledge, there are works and improvements that, not many years ago, were wont to fill us with trepidation and awe at their boldness and costliness, but are now dwarfed into absolute insignificance by the gigantic projects that come teeming from the brain of science, and the panting heart of enterprise. More improvements have been made in the arts and sciences, for the welfare and happiness of man, for the adornments and accomplishments of life, during the last fifty years, than during whole preceding centuries. Tell me not, that we have made no improvements since the days of Adam and Eve, or any subsequent period. Tell me not, that all our progenitors understood all the arts and embellishments of life as well as we. Our age is strongly marked with characteristic improvements—improvements which were unknown to the inhabitants of the world at any former period. The present exceeds all former times in invention, in intellectual, moral and physical power, and in mechanical development. That fiery, iron-ribbed camel, with its burden of thousands, dashing along with the rapidity of lightening—that mighty leviathan of the deep, whose back is crowded

with living souls, and whose belly is crammed with the products of every clime and nation, marching with the speed of a sunbeam over the pathless ocean, in spite of storms and tempests, are the rich fruits of the present era's intellectual growth. And the time will soon come, when similar improvements will be introduced into all branches of business.

JOHN GOLDSBURY.

### THE FAMILY.

The family is like a book—

The children are the leaves,  
The parents are the cover, that  
Protective beauty gives.

At first the pages of the book  
Are blank and purely fair,  
But Time soon writeth memories,  
And painteth pictures there.

Love is the little golden clasp  
That bindeth up the trust;  
O, break it not, lest all the leaves  
Shall scatter and be lost.

*Country Gentleman.*

### ITALIAN BEES.

During the early part of last year the Commissioner of Patents at Washington authorized Mr. S. B. PARSONS, of Long Island, N. Y., to proceed to Italy, and inquire into the habits of Italian bees, and if, upon investigation, he found them possessing qualities of value which our native bees do not possess, to procure a certain number of swarms and send them to the Patent Office.

He entered upon the duties assigned him, and arrived in the country of the Italian Lakes in April, 1859. After wandering about among the hills of that delightful region for some months, his researches were arrested by the approach of hostile armies, and he was not able to resume them until the following September, when he met an intelligent Bavarian who had established himself in the Grisons, and had devoted himself to the culture of pure Italian bees.

The result of his researches convinced him that these bees possess qualities superior to those of our own, and he ordered for the Department to the full amount which he was authorized to expend, and directed them to be sent by the Arago on the 18th of October from Havre, but by some unaccountable delay they were not shipped until December 28th, from Genoa.

In his investigations, Mr. Parsons says he came to the following conclusions in relation to the Italian bees:

1. That they will endure the cold better than ours.
2. That they swarm twice as often.
3. That they are abundantly more prolific.
4. That the working bees begin to forage earlier, and are more industrious.
5. That they are less apt to sting, and may be easily tamed by kind treatment.

6. That the queen may be so educated as to lay her eggs in any hive in which she is placed, while the bees of such a hive, deprived of their own queen, will readily receive her.

7. That its proboscis is longer, and it can reach the depths of flowers which are entirely beyond the efforts of the common bee.

8. That a young queen, once impregnated, will continue fertile during her life—from four to seven years. This quality will insure pure broods, till the whole country is filled with them.

9. That they are far more brave and active than the common bee; will fight with great fierceness, and more effectually keep the moth out of the hive.

Having read the statement of Mr. Parsons, and learning that Mr. BRACKETT, of Winchester, in this State, a gentleman who has gained some celebrity as a skillful cultivator of several varieties of grapes,—had introduced the Italian bee into his colonies, we visited his place a few days since, and examined both bees and grapes for ourselves. In the midst of his delightful retreat, surrounded on all sides but the south by the natural forest, he nestles on the hillside with his pleasant family, his forcing houses, grapes, and other plants, and his twenty odd swarms of bees! He is full of zeal in regard to them all,—and that zeal is so admirably tempered with knowledge, that one cannot fail to gather valuable suggestions upon any of his favorite topics. Mr. Brackett was early called into consultation with Mr. Parsons, and one or two other distinguished apiarians, in regard to the course to be pursued with the Italian bees, and as a part of the policy he has introduced eight pure queens into his colonies, having first by a most ingenious device driven all the drones, or males, of the common bee from his hives. The queen of the common bee and the drone brood being taken away, and a new Italian queen introduced, the natural work was at once entered upon of forming new queen and brood cells, so that the eggs deposited by the new queen would produce the pure Italian bee!

From the experience thus far gained, Mr. Brackett is inclined to confirm the statements made by Mr. Parsons. He thinks their merits have not been overrated, and states that they are more easily managed, and less sensitive to cold than our bees.

From a little work by H. C. Hermann, the Bavarian referred to above, we learn that the yellow, Italian bee is a mountain insect; it is found between two mountain chains, to the right and left of Lombardy and the Rhetian Alps, and comprises the whole territory of Tessin, Veltlin and South Graubunden. It thrives up to the height of 4500 feet above the level of the sea, and appears to prefer the northern clime to the warmer, for in the south of Italy it is not found.

It differs from our common black bee in its longer, slender form, and light chrome-yellow color, with brimstone-colored wings, and two orange-red girths, each one-sixth of an inch wide. Working bees as well as drones have this mark. The drones are further distinguished by the girths being scolloped, like the spotted water-serpent, and attain an astonishing size; almost half as corpulent again as the black drones. The queen has the same marks as the working bees, but much more conspicuous, and lighter; she is much larger than the black queen, and easy to be singled out of the swarm on account of her remarkable bodily size and light color.

We engaged with Mr. Brackett in some manipulations, such as taking out the queen bee and a drone or two for examination, and peeping into some of the nuclei which he is forming.

*For the New England Farmer.*

#### CEMENT PIPE FOR CONDUCTING WATER.

MR. EDITOR:—In reply to a subscriber in your paper dated June 23d, 1860, I would say I have had considerable experience in cement pipe, having been in the business, more or less for the last three years. I laid down over 100 rods last year at East Fairfield, Vt., where the pressure was over 100 feet, and let it lay six months, and it will hold any pressure, when laid carefully, and large enough. It can be afforded from 50 cents to \$1.25 cents per rod, according to the pressure, and the time that you keep the water off. It can be let on, where there is no pressure, in one week, and I can lay it just as it is wanted, large or small. It is very smooth, looking like polished stone when in the ditch, and as round as a stove-pipe, having moulders for the purpose. The water is as good as at the fountain. We have used it two years now, so I know something about it. Lead, when laid down, is apt to be more or less poisonous, according to the kind of water that runs through it; but cement is not. I think the time is not far distant when there will be more cement laid for fetching water than logs, or lead, or anything else; for there is no one that ever knew of its ever wearing out; nor indeed can it, for it becomes like a stone.

J. CONVERSE.

*Bakersfield, Vt., July, 1860.*

**SOFTENING OF THE BRAIN.**—Professional, but more frequently business men, are its subjects. The predisposing cause is sumptuous living. After a morning fully occupied with business matters, a man comes regularly to a dinner of various and highly-seasoned dishes of fish and fowl and flesh, with every adjunct to excite and gratify the appetite. He partakes freely of food and wine, in excess to be sure, though perhaps never to the extent of gluttony or inebriety. The papers are read, cigars are smoked, a few hours are passed socially, and the evening closes with a hot supper, and abundant punch. If a man living thus continues successful in his plans and his business, he may go through life with no other physical or

mental infirmity than the pain and irascibility of gout or the distress and gloom of dyspepsia. But if it be otherwise, if he meet with a reverse of fortune, or if some grief or chagrin come upon him, then he is exceedingly liable to this fatal disease, which is the joint product of luxurious living and some torturing anxiety or disappointment.—*Report of Dr. John E. Tyler, Superintendent of the McLean Asylum.*

### EXTRACTS AND REPLIES.

#### CORN AFTER RUTA BAGAS—MUCK AND ASHES COMPOST—WIRE-WORMS.

We, farmers, take for granted that you of the agricultural press are pleased and able to answer all questions on farming that we choose to put. Here are a few.

Neither corn nor tobacco will grow after ruta bagas. Why not? What will?

What is the *modus operandi* of composting muck with lime or ashes?

Is there anything to prevent the ravages of the wire-worm? No method which I have seen given will do it—they continue their ravages now by eating into and destroying the full grown stalk. They are often in muck grounds in great numbers, and in composting muck is there not danger of introducing this pest when the muck pile is spread? T. M.

*South Hadley, July, 1860.*

REMARKS.—You inquirers will find that you can ask a thousand questions which we "of the agricultural press" cannot answer, even were we as wise as we may think ourselves.

We can raise corn after ruta bagas, and so can you, by putting on manure enough. The bagas are great robbers, and the land must be highly fed after a crop of them. If tobacco will not grow after ruta bagas, we are quite satisfied—it ought not to be cultivated anywhere. You may follow ruta bagas successfully with any other crop, we think, by heavy manuring—at least, we find no difficulty in doing so.

For suggestions in relation to composting muck with lime or ashes, see Patent Office Report for 1856, pages 192, 193. We will endeavor to give an article on that subject in the course of a few weeks.

We have rarely seen wire worms in muck, and do not think there is danger of introducing them in it.

#### HOW TO USE LIQUID MANURES.

Will you, or some of your friends, through the medium of the *Farmer*, inform me how liquid manure can be best applied to plowed fields, whether it is best poured on to heaps of compost and hauled with the compost, or applied in some other way?

*Northfield, Aug., 1860.*

INQUIRER.

REMARKS.—If you can obtain a plenty of muck by hauling it one mile or less, it will prove the best absorbent we know of to receive liquid manure, and when thoroughly saturated with them, will form one of the best fertilizers for top-dressing that is used. The liquid may be applied by horse power through a sprinkler, but they are expensive, and can be used only for that single purpose. If the muck is on hand, and is dry, it may be composted at any moment when the liquids have accumulated, and the heap thrown aside for use whenever it is convenient to use it. We believe the value of the muck, of itself, will more than pay the cost of carting it in and out again, especially if it is to be used on sandy lands.

#### CURE FOR HEAD MURRAIN.

I have long thought that your pleuro-pneumonia or cattle disease is nothing more nor less than the head

murrain. This disease begins at the roots of the tongue, and runs from thence to the lungs, and thus destroys the vital parts. It can easily be ascertained by any one whether I am correct or not, by feeling of the throat near the roots of the tongue of the animal diseased, and ascertaining whether there is an enlargement there or not; if this is the case with the affected cattle in your vicinity, I think I could cure them for twenty-five cents per head.

My method in curing cattle troubled with the head murrain is, to cut a slit under the throat as near as possible to the roots of the tongue. Cleave off the skin from the flesh and crowd in a quantity of fine salt. When this becomes dissolved, put more salt into the slit, and continue to do so as long as the yellow matter will run. Cattle well attended to may be cured in a week. Taken early, four or six doses of salt will generally answer.

JOHN CONN.

*Salem, Vt., Aug., 1860.*

#### VERMIN ON CATTLE.

My cattle last spring and now are troubled with black lice. I would like to ask through your valuable paper (which I commenced taking last spring) the best and safest way of getting rid of them?

Also, if lice will remain in a barn from the spring to the next fall so as to trouble cattle, and if so, the cheapest and best method of destroying them?

A NEW SUBSCRIBER.

*Romney, N. H., Aug., 1860.*

REMARKS.—We have rarely known simple oil of any kind, lard oil, sweet oil, or even common lamp oil, fail to destroy lice on cattle if judiciously and persistently applied. It must be added a little at a time, and rubbed in upon every part with patient perseverance. If this *does* fail, a little unguentum, rubbed on in the same way, will bring the desired result. Do it, however, in mild weather, and see that the cattle are not exposed to cold winds or storms for a few days succeeding its use.

#### CURE FOR HOLDFAST IN CATTLE.

I notice in your last monthly information is wanted by N. Mathews, of Henniker, N. H., in reference to the cure of a hard substance called holdfast, on the jaw of a valuable steer. If it is the same thing as we call a wen (which no doubt it is) it may be cured in the following manner: take good soft soap, any desirable quantity, put with the same about half the quantity of fine salt; heat the mixture and apply warm; rub it in once a day, or oftener, if convenient, and the bunch will soon disappear. The same will cure the horn distemper by applying it very hot to the hollow, back of the head. I know it from experience.

*Ripton, Vt., Aug., 1860.*

A. A. ATWOOD.

#### RHUBARB WINE.

I saw a receipt in your last paper for making rhubarb wine. Can you give the best time for making it?

*Springfield, Aug., 1860.*

READER.

REMARKS.—Mr. ASA CLEMENT, of Lowell, Mass., will tell you all about it. We do not know.

THE SCHOOLMASTER'S DIFFICULTY.—A country dominie had a hundred boys and no assistant. "I wonder how you manage them," said a friend, "without help." "Ah," was the answer, "I could manage the hundred boys well enough; it's the two hundred parents that trouble me—there's no managing them."

FARMING AS AN AVOCATION.—We welcome to our columns again, with pleasure, our old correspondent, "R. B. H.," of Amherst, Mass., and hope that now his pen is on the wing again, he will direct his flight this way often.

## FACTS FROM THE CENSUS.



THE taking of the census, which is now going on, is revealing some facts in regard to the business and population of New England which seem considerably to surprise some of our people. By

this census, the fact is made apparent that the population of a considerable number of the agricultural towns in New England has decreased since the taking of the last census, in 1850. This fact will be considered by some without connection with other facts, and will be taken as evidence of decay, and that farming is not a profitable employment.

When the full returns of these towns are before us, so that we can see whether the decrease of population is followed by a corresponding decrease of agricultural products and taxation in the town, we shall examine them with interest, and hope to turn to the subject again. In some cases, the valuation of the town will undoubtedly become less with the depreciation in the population—but they will be those rocky and mountainous regions that never ought to be used for any thing but the forests which they produce, and the pasturage which may be made to succeed them by burning the refuse wood after the timber is taken away.

After taking off the timber from a township of land, and manufacturing it into valuable articles for domestic or foreign uses, and then cropping the same soil several years with rye, or depasturing it with herds of cattle or flocks of sheep, the leaving it to grow up to forest again is no evidence to us that the people who have occupied it have lost their energies, or are any the less thrifty than those of other towns who still remain and cultivate the soil. Let it alone, and the earth will recuperate itself, so that many a young man, who now leaves only barren hills, will live to return and find them clothed with an ample crop of timber from which he may carve out a fortune. It would be an evidence of bad judgment and unthrift, if they should remain upon the barren hills and attempt their cultivation, when there is an abundance of land richer in fertilizing agents and so much more easily wrought.

A writer in the *Boston Journal*, dating at Warren, N. H., in the valley of Baker's River, makes

some statements in point. His letters are quite interesting. He says the population of the town of Warren has increased 322 since 1850, but gives as a local cause, the existence of a copper and lead mine in the eastern part of the town, which continues to be successfully worked. The land is favorable for grazing, so that large quantities of butter and cheese are made, and "more maple sugar is made here than in any other town in the State, the amount last spring having been *eighty-five thousand pounds!*"

The population of Wentworth has decreased, which the writer ascribes to a local cause—there has also been a decrease in the towns of Orford, Dorchester and Lyme. The writer adds, "it is probable that the census of nearly all the purely agricultural communities in New Hampshire will show a falling off in population during the last ten years, the gain, if there has been any, having been in the manufacturing places." Although the population in the town of Lyme has decreased, its wealth has increased. The letter referred to, states that it is one of the richest agricultural communities in the State, and probably has more sheep than any other, the number now owned in the town being from twelve to thirteen thousand. The production of wool this year is estimated in value at \$25,000. The farmers raise all the wheat which is used in the town. We doubt whether there is another town in New England which can say the same.

These remarks sustain the views we entertain, and have more than once expressed, in regard to the depreciation of population in our rural towns being an evidence of the unprofitableness of farming as an occupation. We find in these instances that where the land is in a favorable position, and the soil is fertile and of easy cultivation, the labor of the husbandman is abundantly rewarded. The township of Lyme lies on one bank of the Connecticut river, and a considerable portion of the land is rich, and may be cultivated with ease. The town of Dorchester lies upon the hills, and quite likely a considerable portion of it which is devoted to farm purposes would be found more profitable in the end if it were left to go back to forest again. A portion of the township of Orford lies on the same river, but if we mistake not, a much larger portion upon the hills.

The reason, then, of this depreciation of population in the rural towns, whatever else it may be, is not that the farmers of New England manage their business with less interest or skill than formerly, or that the occupation itself receives less consideration, but that it springs from natural causes:

1. That, aided by a better knowledge of the Art of Husbandry, and by better varieties of

plants and breeds of stock, a better knowledge of the modes of securing them through the winter, and the advantages derived from the use of labor-saving machinery, vastly more is produced than formerly on the same extent of land.

2. Farmers have found that mountainous and rocky lands, remote from markets that demand vegetables and grains, are more valuable for timber which they will produce once in twenty to forty years, than to be devoted to any other purpose—and that in nearly all cases, the moist low lands are the best adapted to cultivation.
3. The forests of the hills being cut off for manufacturing purposes, the persons living in their vicinity are naturally called upon to aid in the process of the manufacture of innumerable articles of convenience and value that find their way into the remotest regions of the earth. So that it is neither a want of perception, nor decaying energies that prompt them to leave the farm, but an intelligent foresight that induces them to engage in some remunerating employment, while nature in her steady processes of beneficence recuperates the soil and restores the crops which man had exhausted for his convenience and comfort.

#### HAY FOR ONE SHEEP.

In reply to the question, How much hay will a sheep consume during the winter months, the *Michigan Farmer* remarks as follows:

"The usual rate of the consumption of food is at the rate of  $3\frac{1}{2}$  pounds of hay daily for every 100 pounds of live weight. If we take the average of flocks the live weight of 100 common sheep would be about 7500 pounds, or from that up to 8000. It is rare that a whole flock of fine woolled sheep will average more than 70 pounds for each head, though it may be that this weight is exceeded in some instances. At the rate mentioned, a flock of 100 sheep should use up or consume 280 pounds of hay per day, or a total of 25 tons in the winter season that lasted 180 days. This would also equal 504 pounds to each single sheep, or it may be stated as a general rule that a full grown Merino sheep averaging in live weight from 75 pounds to 100, will consume during the winter season a quarter of a ton of hay, or its equivalent, if comfortably kept. If grain forms a part of the ration, of course some of the hay may be saved; but if the animal is to be kept growing wool, it will need its full ration of hay, and a little grain, too."

**AGRICULTURAL PAPERS.**—The following testimony of Horace Greeley to the value of agricultural papers, we presume will have weight even where his political opinions would be deemed heretical:

"There are at present some fifty or sixty peri-

odicals published in our country devoted to farming—as many, I presume, as in all the world beside. They have been built up at great expense of talent, labor, and money; for when Col. Skinner started the first of them at Baltimore, some forty or fifty years ago, the idea of teaching farmers anything in *that* way was hooted by them as ridiculous, and he found it hardly possible to give his early numbers away. Hundreds of thousands of dollars have been spent on these publications; and they are this day, in my judgment, doing more to promote the true growth of the country and the substantial, enduring welfare of our people, than Congress, the Army and the Navy, for the support of which they are taxed some forty millions per annum."

#### SUMMER PRUNING OF FRUIT TREES AND THE VINE.

A system of pinching off the shoots of trees in the growing season, is gaining favor constantly; as yet, however, it is only followed, so far as we have observed, by gardeners bred and by amateurs. It is anticipating pruning, by preventing the growth of any thing to be removed in pruning; hence it is performed on the same principles as pruning, that is, to accomplish the same ends by similar means.

It has many advantages over pruning, as may be readily perceived, especially in directing growth, and checking it so as to secure perfect maturity of the young wood. It is performed by pinching off between the finger and thumb, especially making use of the thumb-nail, shoots as soon as they pass the fixed limit. It may be performed throughout the growing season, but in some cases, too early pinching causes an undesirable growth of lateral branches, while in the proper season, this same growth of laterals is what makes the practice so useful in directing growth, and forming the branches exactly to suit the orchardist.

Barry quotes Dubreuil at considerable length, and we give the heads under which the objects of pruning are classified:

I. The vigor of a tree, subject to pruning, depends, in a great measure, on the equal distribution of sap in all its branches. This may be done by the following means:

1. Prune the branches of the most vigorous parts very short, and those of the weak parts long.
2. Leave a quantity of fruit on the strong part, and remove the whole, or greater part, from the feeble.
3. Bend the strong parts; keep the weak erect.
4. Remove from the vigorous parts of the superfluous shoots as early in the season as possible, and from the feeble parts as late as possible.
5. Pinch early the soft extremities of the shoots on the vigorous parts, and as late as possible on the feeble parts, excepting always any shoots which may be too vigorous for their position.
6. Lay in the strong shoots on the trellis early, and leave the feeble parts loose as long as possible.

7. In espalier trees, giving the feeble parts the benefit of the light, and confining the strong parts more in the shade, restores a balance.

II. The sap acts with greater force, and produces more vigorous growth on a branch, or shoot pruned short, than on one pruned long.

III. The sap tending always to the extremities of the shoots, causes the terminal bud to push with greater vigor than the laterals.

IV. The more the sap is obstructed in its circulation, the more likely it will be to produce fruit buds.

V. The leaves serve to prepare the sap absorbed by the roots for the nourishment of the tree, and aid the formation of buds on the shoots. All trees, therefore, deprived of their leaves, are liable to perish.

VI. Where the buds of any shoot or branch do not develop before the age of two years, they can only be forced into activity by a very close pruning, and in some cases, as the peach, this even will often fail.

#### ADVANTAGES OF SMALL FARMS.

It has always been a question among political economists, whether large or small farms were most advantageous to the State. Without undertaking to settle the controversy, we will make an interesting extract in relation to this point, from the Abbe St. Pierre, who thought that the laws ought to prescribe bounds to the accumulation of landed property. The reader will observe that his inquiry is, as to which "is most advantageous to the State?" We presume that in the matter of agriculture, what is the best for individuals will prove to be the best for the State.

Whether a man can manage a large, or a small tract of land to the best advantage will usually depend upon two things,—*capital* and *skill*. If he possesses enough of these, why should he not manage a thousand acres as well as one hundred, in a country like ours, where land is abundant?

As a general thing, however, with the resources that our New England farmers possess, we have no doubt that a larger per centage is realized on moderately small farms, than on large ones. The Abbe says:—

The Romans had censors, who limited, in the first instance, the extent of a man's possessions to seven acres, as being sufficient for the subsistence of a family, *understanding by an acre as much land as a yoke of oxen could plow in one day*. As Rome increased in luxury, it was extended to five hundred acres; but even this law, though indulgent in the extreme, was soon infringed, and the infraction hastened rapidly the ruin of the republic. "Extensive parks," says Pliny, "and large domains, have ruined both our own Italy and the provinces which the Romans have conquered; for the victories which Nero, (the consul), obtained in Africa, were simply owing to the circumstance of six men being in possession of nearly one-half of Numidia." Plutarch informs us, that in his time, under Trajan, a levy of three thousand men could not have been effected in all Greece, which had formerly furnished armies so numerous; and that sometimes you might have travelled a whole day, on the high-roads, without meeting a human being except now and then, perhaps, a few solitary shepherds. The reason was that Greece had been parcelled out among a few

wealthy proprietors. In countries where property is so unequally divided, conquerors have always met with a feeble resistance. We have examples of this in all ages, from the invasion of the lower empire by the Turks, to that of Poland, in our own days. Overgrown estates destroy alike the spirit of patriotism, in those who have every thing, and in those who have nothing. "The shocks of corn," says Xenophon, "inspire those who have raised them to defend them. They appear in the fields as a prize exhibited in the middle of the theatre, to crown the conqueror."

Such is the danger to which the great inequality of property exposes a state from without: let us view also the mischief which it occasions within. An old comptroller-general having retired to his native province, made a considerable purchase in land. His estate was surrounded by about fifty small manors, the annual rent of which might be from sixty to eighty pounds sterling each. The proprietors were honest country gentlemen, who for many generations had furnished their country with gallant officers, and respectable mothers of families. The comptroller-general, desirous of extending his lands, invited them to his castle, entertained them magnificently, gave them a taste of Parisian luxury, and concluded with an offer of twice the value of their estates, if they thought proper to dispose of them. The guests, to a man, accepted his offer, imagining they were about to double their revenue, and filled too with the hope, no less fallacious to a country gentleman, of securing a powerful protector at court. But the difficulty of placing out their money to advantage, a taste for expense, occasioned by the possession of sums which they had never before seen in their coffers, and frequent journeys to Paris, soon reduced the price of their patrimony. By degrees these respectable families disappeared; and thirty years after, one of their sons who could reckon among his ancestors a long succession of captains of dragoons, and knights of St. Louis, was found wandering on foot over his paternal inheritance, soliciting the place of a keeper of a salt office, to keep him from starving.

Such is the evil inflicted on the citizens by the accumulation of many estates in the hands of a single proprietor; and the injury done thereby to the land itself is not the less to be deplored. I was some years ago, at the house of a gentleman in affluent circumstances, in Normandy, who cultivated himself a very considerable grass farm, situated on a rising ground, of a very indifferent soil. We walked together round his vast enclosure, till we came to a large space completely overrun with mosses, horsetail and thistles. Not a blade of good grass was to be seen. The soil indeed was at once ferruginous and marshy. He had intersected it with many trenches to drain off the water, but all to no purpose; nothing would grow. Immediately below there was a series of small farm-houses; the land belonging to them was clothed with grassy verdure, planted with apple trees that were loaded with fruit, and enclosed with tall alders. The cows were feeding among the trees of the orchards, while the country girls sat at the doors of their houses, with their spinning wheels, singing as they worked. Their rustic and simple lays, repeated from distance to distance, under the shade of trees, communicated to this little hamlet a vivacity which increased the de-

pressing solitude of the spot where we stood, and I asked its possessor how it happened that lands so contiguous should present so different an aspect? "They are both of the same nature," said he, "and there formerly stood upon this very spot, small houses, similar to what you see below. I purchased them, but greatly to my loss. Their late inhabitants, indeed, having an abundance of leisure, and but little ground to cultivate, cleared away the mosses and the thistles, manured the soil and had a plentiful crop of grass. If they wished to plant, they dug trenches, and having removed the stones, filled them with good mould which they collected from the bottom of the ditches, and along the sides of the highway. Their trees took root and prospered. But these operations would cost me so much time and expense, that I should not be repaid even the common interest of my money." This gentleman, it must be observed, wretched steward as he was, but excellent in heart, was relieving at that very time, by his charity, most of the ancient farmers who had no longer wherewith to live. Here, then, is another instance of both men and lands rendered useless by the injudicious extension of property. It is not upon large domains, but in the bosom of industry, that the Father of mankind pours out the precious fruits of the earth.

*For the New England Farmer.*

#### RAISING GRAIN—CORN—PICKLES.

MESSRS. EDITORS:—Some of your readers may be interested in the subject of raising grain, and as I have had considerable experience in the matter, I will state a little of it. It is thought that oats sometimes changes to rye or barley, or barley to oats, and your columns have contained some inquiries concerning it.

My first experiment was with barley. I selected the seed from a lot where oats were mixed with it, sowed it in rows in the garden, and had a fine crop of barley, but not an oat appeared. My next experiment was with oats. I sowed a strip about four rods square, and mowed it as directed in an article which I saw in the *Farmer*. I also sowed clover and herdsgrass seed with the oats, both of which caught well, and finally gave me a fine crop of grass, but not a spear of rye has showed itself. I cropt the oats off several times, supposing that would have an influence to change the crop, according to the theory of those who state that these grains change from one to the other.

My opinion about this matter is, that if grains are sown separately, that like will always produce like.

I had a small parcel of corn in the spring which was brought from Peru. It has been planted now nine weeks, in a garden without extra manure, and it averages five and a half feet in height.

I send you a jar of pickles put up last season; they are not quite as good as they would have been had they not got a little chilled in the cellar last winter; but I hope they will prove both acceptable and palatable. HENRY J. DURGIN.

*Shaker Village, N. H., 1860.*

REMARKS.—The jar was safely received, and its contents pronounced "excellent," by all who tested them.

## LADIES' DEPARTMENT.

### SLEEP.

There is no fact more clearly established in the physiology of man than this, that the brain expends its energies and itself during the hours of wakefulness, and that these are recuperated during sleep; if the recuperation does not equal the expenditure, the brain withers—this is insanity. Thus it is that in early English history, persons who were condemned to death by being prevented from sleeping always died raving maniacs; thus it is, also, that those who starve to death become insane; the brain is not nourished, and they cannot sleep. The practical inferences are these: First, Those who think most, who do the most brain-work, require most sleep. Second: That time saved from necessary sleep is infallibly destructive to mind, body, and estate. Third: Give yourself, your children, your servants—give all that are under you, the fullest amount of sleep they will take, by compelling them to go bed at some regular early hour, and to rise in the morning the moment they awake; and within a fortnight, nature, with almost the regularity of the rising sun, will unloose the bonds of sleep the moment enough repose has been secured for the wants of the system. This is the only safe and sufficient rule—and as to the question how much any one requires, each must be a rule for himself—great Nature will never fail to write it out to the observer under the regulations just given.—*Dr. Spicer.*

A WORD TO MOTHERS.—Consider it your religious duty to take out-door exercise, without fail, each day. Sweeping and trotting round the house will not take its place; the exhilaration of the open air and change of scene are absolutely necessary. O, I know all about "Lucy's gown that is not finished," and "Tommy's jacket," and even his coat, his buttonless coat, thrown in your lap, as if to add the last ounce to the camel's back; still I say—up—and out! Is it not more important that your children in their tender years should not be left motherless? and that they should not be born to that feeble constitution of body which will blight every earthly blessing? Let buttons and strings go; you will take hold of them with more vigor and patience, when you do return, bright and refreshed, and if every stitch is not finished, at just such a moment, (and it is discouraging not to be able to systematize in your labor, even with your best efforts,) still remember that "she who hath done what she could, is entitled to no mean praise. Your husband is undoubtedly the "best of men;" though there are malicious people who might answer that that is not saying much for him! Still, he would never to the end of time, dream what you were dying of. So accept my advice and take the matter in hand yourself.—*Fanny Fern.*

CAMPBOR is the most powerful agent to drive away mosquitoes. A camphor bag hung up in an open casement will prove an effectual barrier to their entrance. Camphorated spirit applied as a perfume to the face and hands will act as an effectual preventive; but when bitten by them, aromatic vinegar is the best antidote.



## DOMESTIC RECEIPTS.

**PEACH PRESERVE.**—A lady of Philadelphia, whose peaches keep beautifully and retain much of their delicious flavor, takes half a pound of sugar to each pound of peaches. The sugar is put into a preserving-kettle, with half a pint of water to every pound of sugar, heated, and the surface skimmed. Into this syrup the peaches, after being parcd, are placed, and boiled ten minutes. The peaches are then put into the cans while hot, and immediately sealed up.

**COMPOTE OF PEACH.**—Pare half a dozen ripe peaches, and stew them very softly from eighteen to twenty minutes, keeping them often turned in a light syrup, made with five ounces of sugar and half a pint of water boiled together for ten minutes. Dish the fruit; reduce the syrup by quick boiling, pour it over the peaches, and serve them hot for a second-course dish, or cold, for dessert. They should be quite ripe, and will be found delicious dressed thus. A little lemon-juice may be added to the syrup, and the blanched kernels of two or three peach or apricot stones.

**BLACKBERRIES.**—Preserve these as strawberries or currants, either liquid, or jam, or jelly. Blackberry jelly or jam is an excellent medicine in summer complaint or dysentery. To make it, crush a quart of fully ripe blackberries with a pound of the best loaf sugar; put it over a gentle fire, and cook it until thick; then put to it a gill of the best fourth-proof brandy; stir it for awhile over the fire, then put it in pots.

**BLACKBERRY SYRUP.**—Make a simple syrup of a pound of sugar to each pint of water; next boil it until it is rich and thick; then add to it as many pints of the expressed juice of ripe blackberries as there are pounds of sugar; put half a nutmeg grated to each quart of the syrup; let it boil fifteen or twenty minutes, then add to it half a gill of fourth-proof brandy, for each quart of syrup; set it by to become cold; then bottle it for use. A table-spoonful for a child, or a wine-glass for an adult is a dose.

**BLACKBERRY WINE.**—The following is said to be an excellent receipt for the manufacture of superior wine from blackberries; Measure your berries and bruise them, to every gallon adding one quart of boiling water: let the mixture stand twenty-four hours, stirring occasionally; then strain off the liquor into a cask, to every gallon adding two pounds of sugar; cork tight and let stand till the following October, and you will have wine ready for use, without any further straining or boiling, that will make lips smack as they never smacked under similar influence before.

**BLACKBERRY CORDIAL.**—We avail ourselves of the kindness of a friend to publish the following excellent receipt for making cordial. It is recommended as a delightful beverage, and an infallible specific for diarrhœa or ordinary disease of the bowels:

*Receipt.*—To half a bushel of blackberries, well mashed, add a quarter of a pound of allspice, two ounces of cinnamon, two ounces of cloves; pulverize well, mix and boil slowly until properly done; then strain or squeeze the juice through homespun or flannel, and add to each pint of the

juice one pound of loaf-sugar; boil again for some time, take it off, and, while cooling, add half a gallon of best Cognac brandy.

*Dose.*—For an adult half a gill to a gill; for a child, a teaspoonful or more, according to age.—*Godey's Lady's Book.*

## YOUTH'S DEPARTMENT.

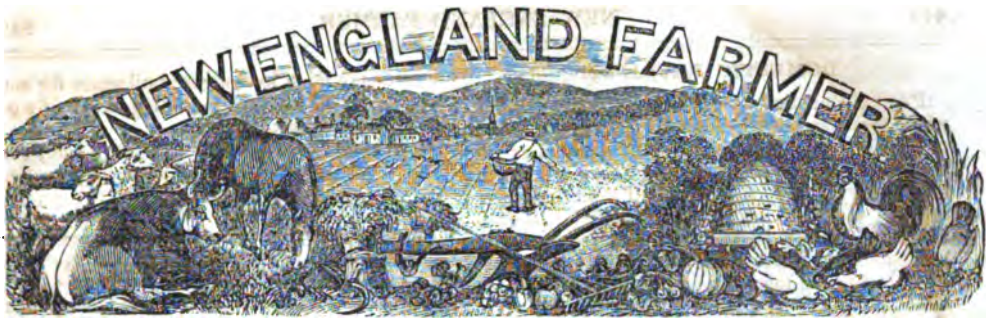
## OLD MARCO, THE TAME BEAR.

A nobleman in France had an old bear named Marco, which he kept in a little cabin built inside his barn. The winter of 1709 was a very severe one, and many poor people almost froze to death. Some peasants were accustomed to come into the barn to sleep, and among them was a little child, who, seeing Marco had a snug nest, crept in to share it with him. Old Bruin was not accustomed to such liberties taken with his dignity, but he seemed to take the matter kindly, and instead of injuring the little intruder, he took him tenderly between his paws, and hugging him up to his shaggy breast, kept him warm and comfortable till morning. It was a nicer bed than he had slept in for many a night, and when evening came again he returned to his new lodging, where he found old Marco glad to see him, and again went to sleep in his great paws. While he slept the bear never stirred, lest he should disturb him, and after this, he saved part of his supper for his hungry little friend, who was very thankful to the kind old bear. The friendship continued till the little boy's death, when Marco grieved for him a long time, scarcely taking any food.

The white bear lives in the cold northern regions, where vast numbers of them are found, in proportion to the other animals of that locality. They are sometimes found floating on a fragment of ice a long distance from land; and then, if the boat of a poor Greenlander chances to come quite near, a bear will sometimes spring into it, and if the boat is not capsized, he sits down quietly like any other passenger, and allows himself to be rowed to land, when he walks off without stopping to pay his fare.

A LITTLE boy three years old was blessed with a new little sister. The day following he was required to be very still, and the reason given therefor, that his mother was very weak, and his sister too. He obeyed the injunction carefully. In the course of the day, some playmates came to the house; he rushed to the door, and putting his little finger up to check their noise, said, "Be very quiet—I have got a little baby sister, and she is very weak and tired—for she has walked all the way from Heaven to-day, and you must not disturb her."

THE spaces of the Solar System, or some of them at least, appear to be thickly peopled with small planets or asteroids, invisible to the naked eye or by the ordinary telescope. No less than forty-seven of these young planets are now known to exist between Mars and Jupiter, and every few months we hear of a new discovery. The largest of them is said to be only forty miles in diameter, and the smallest only four.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

#### CALENDAR FOR OCTOBER.

"Solemn, yet beautiful to view,  
Month of my heart! thou dawnest here."



OCTOBER is here again, and now we know that Autumn has come in good earnest. All through *September* there lingered a memory of Summer. There were warm suns, and balmy airs, and green leaves, and we could scarcely realize that change and decay were so near. But with this month of OCTOBER, there come such decided tokens of another presence as to dispel all illusions, and we may as well bid farewell to the warm precincts of these cheerful days, nor cast one longing, lingering look behind. The cold, frosty mornings and ever shortening twilights are indications which we cannot mistake. It seems but a few days since the sun remained above the horizon an hour or two after our evening meal—since little children played "I spy," and "ball," out on the green, till almost nine o'clock, and when the mother's voice sought to gather the little flock under shelter for the night, they said, "why, mother, it is red in the west." Then in shaded lanes and quiet streets might have been seen the country youth, his face beaming under his broad-brimmed hat, sauntering slowly, with a muslin-robed damsel on his arm. Pleasant summer rambles, which careworn men and women will look back upon with mournful pleasure some twenty years hence.

But the little children must not play out there

these chill October nights, and it is quite too cold for romantic evening walks. The listless saunter is exchanged for a brisker pace, and the broad-brimmed hat is hung on its peg to await the coming of another season.

The sad leaves are falling, too. Their gorgeous colors will soon fade away, and the "evergreen pine," the hemlock, spruce and firs, will come into repute. They have not made much show among the elms and maples this summer. But modest merit is sure to succeed at last, and persistent effort wins the day.

Yes, the sad leaves are falling, and few are so thoughtless as to witness their fall without some mournful, and yet salutary musings. Perhaps you followed some friend to the grave on an October day like this, many years ago, and you have never forgotten how the leaves rustled under your feet as you moved along toward the old red gate of your village grave-yard, nor how, as you passed under the great tree that grew at the entrance, two or three yellow leaves fluttered slowly down, and rested on the pall-covered bier. But you thought it was a more fitting time to restore dust to dust, than if the world were just blooming into spring.

But to those who have no special and personal associations connected with this season of the year, it always speaks lessons of earth's changes and earth's frailty—lessons trite and oft-repeated, yet ever new and impressive.

"I look to nature, and behold  
My life's dim emblems rustling round,  
In hues of crimson and of gold—  
The year's dead honors on the ground;  
And, sighing with the winds, I feel,  
While their low pinions murmur o'er,  
How much their sweeping tones reveal  
Of life and human destiny."

But Autumn's tones are not all *minor*. There are other voices that speak to us, besides those which tell of decay and death. There is a bracing atmosphere which brings strength to the enervated frame, and which makes us feel like walking

erect, as becomes the lords of creation, and taking in full draughts of the divine elixir.

In the orchard there are red and golden apples, some of which are ready for immediate disposal, and some are suggestive of winter evenings, when we

—"gather round the evening fire  
And crack stale jests, that never tire."

There are pumpkins, large, round and yellow as a rising moon, and squashes, which, with their long crooked necks, look as if a flock of geese might have lain down among the withered vines and suddenly become transmuted to gold! Then there are rows of turnips, potatoes, cabbages and other vegetables, of humble pedigree, and of little beauty to the eye, but very useful in their day and generation. As we walk over our acres, and look at all these things, we have a little private "Thanksgiving" in our hearts, quite forestalling the one the Governor is going to appoint for November.

Out in the woods, there are chestnuts, which our juvenile friends will not forget if we do, for "going chestnutting" is one of the *events* of boy-life,—and the more delightful, we fear, because there is just enough of the savor of "stolen waters" about it to inspire an adventurous boy!

Most of us remember the additional zest given to a foraging expedition of this kind, when "Old Brown" or "Old White" came stalking under his own trees as if he were the thief, and we lords of the domain, till he came, as he thought, within collaring distance of some small culprit—but didn't we dodge him! Didn't we show him a clean pair of heels, and then when safely on the other side of the fence, derisively laugh as he stood shaking his cane at us in impotent rage, and vowing vengeance if ever we invaded his pasture again!

It was all very wicked, no doubt, but ever since the earliest "clearing" was made in this country, wild nuts and berries have, by tacit consent, been considered the lawful spoil of the first comer, and Young America does so hate to part with any inherited rights!

Thus have we strung together a few random thoughts suggested by the season, which we graciously leave our friends to pursue at their leisure.

If ever we are disposed to grumble at the approach of winter, let us remember our *polar* neighbors with their whale oil blubber, and be content. Or if, on the other hand, we only look mournfully back and sigh for the vanished summer, let us consider that it were wiser to enjoy the present season as much as possible, because a much sharper one is at hand.

"So October endeth,  
Cold and most perverse—  
But the months that follow,  
Sure will pinch us worse!"

*For the New England Farmer.*

#### HAY AND STOCK IN VERMONT.

MR. EDITOR:—Although the busy season of "haying" is not quite over, yet it will not do to neglect the journals, though I must confess it is rather dry times. Haying is nearly completed in this section of country, and the result is, from two-thirds to three-fourths of the usual quantity. The same bulk of hay is much heavier than last year's growth. Wheat never looked better, and is nearly ripe. Potatoes, ditto. Oats tolerable. Corn first-rate, stalks bulky, and earing thick. We had a "killing frost" the 27th of July, (if I mistake not the date,) on some very low grounds, and a very light one the morning of the 24th ult.

There are many wonders now-a-days for the marvellous, and among others was the "meteor", which was truly a splendid sight. Then there has appeared lately, a fiery red star, in the south-east.

It is no doubt the evening star, but the story is circulated quite freely hereabouts, and is believed by the credulous, that it is a "fire balloon," sent up from the top of Moosehillock mountain, as it appears before dark, and is very bright. But the most splendid, and surprising sight I ever saw, was witnessed on the evening of the 4th inst. It was a rainbow by moonlight. As the moon was just rising, the bow was nearly a half-circle. The colors were discernible, but not quite so bright as in the daytime; it lasted about fifteen minutes.

No doubt the speculating drovers will find it out soon enough without telling them of the fact, i. e., that many of the farmers in this section will be obliged to sell off, or kill many of their cattle and horses. Many a poor man is trimming up the road-sides and wet pastures, to get something to keep a cow on, but many will be entirely without hay when foddering time comes.

Now we want you to give us a little advice. Hay is now worth twelve dollars a ton, and very little to be brought at any price; will it pay to winter a cow, that usually would bring \$10 or \$12, or a horse, that in times of hay, would bring \$25 or \$30? Will stock of any kind bring enough more next spring to pay? Our market for stores has usually been southern New Hampshire, and Massachusetts. I suppose it is useless to expect any such market this year. T. P. BAILEY.

*Newbury, Vt., August 7, 1860.*

REMARKS.—The above communication has been inadvertently delayed. We hear of no special depreciation in stock that has not existed for some months past. The true policy is, we think, to winter all the stock you can, and feed it well, rather than to sell what hay you have, because if you cut off the stock, you cut off the means of securing future crops. There will be a demand for a great deal of good beef, before the disease will show itself much, if, unhappily, it comes at all.

THE BIRDS OF NEW ENGLAND.—The attention of the reader is called to a highly interesting and instructive article in another column, upon this subject, the first of a series of numbers from our accomplished correspondent, "J. A. A."

### AMERICAN AGRICULTURAL IMPLEMENTS.

The leading editorial article of the *Mark Lane Express*, an agricultural paper printed in London, of Oct. 31, 1859, is based on a fact that may well flatter American vanity as much as it seems to wound English pride.

The article commences with a eulogy on the commercial enterprise of the English people, which introduces a very flattering notice of the energy of British farmers. The writer congratulates the agriculturist that he is assuming to himself more and more of the national character. Like the merchant, the British farmer, when his own market gets a little dull or overdone, looks out for another; and just now is especially intent on making the most of every opportunity and of every available offer. Nor does he look in vain for new markets and new customers. "Brother Jonathan and his first cousin in the colonies," says the editor of the *Express*, "will buy his Shorthorns and Herefords at their hundreds or thousands each. The Emperor of the French will give, we hardly dare say how much a pound for his South Down mutton, and Yorkshire men have audience with the crowned heads of other countries by the favor of a Cleveland stallion, or a famous charger. The Esterhazys, and such leviathan cultivators of the Continent, have become accredited purchasers of our prize implements; while Boydell's traction-engine winds its way through the sugar fields of Cuba; and Crosskill's clod-crusher is in work on the plains of Athens."

Leaving these and many similar statements, so agreeable to the taste and feelings of English readers, to make their appropriate impression, the writer changes the subject and the scene.

It is in the middle of October, 1859, and the Agricultural Society of the Cape of Good Hope, in Africa, is holding its annual exhibition at Cape Town. As with us, it is a show of both stock and implements,—imported cattle and sheep, valued at upwards of five thousand dollars, being entered. The display of machinery is still more imposing, and estimated at four times the value of the beasts. That is to say, there are some twenty thousand dollars' worth of implements on the ground for the Cape farmers to pick and choose from. Among these there are no less than *forty-two* varieties of plows. The editor of the *Express* is not present; but, seated in his office in London, he writes as follows:

"We might even go so far as to imagine that Mr. Sutton, Mr. Barrett and Mr. Cole were on the scene, politely distributing their catalogues, and descanting on the premiums they had taken, and the wonders they had done. Alas! however, it is too well known that some of the finest flights of our poets, and some of the grandest efforts of our artists, have been so devoted to the service of

actions that they really never took a part in. And so would it be with our peasant over what Grantham, Ipswich or Bedford did at the Cape Town plowing-match—for there was not one of them there. Of these forty-two varieties of plows for the English colonists to purchase, *every one of them was of American manufacture.*"

He also asserts that, not only was there no English plow on the ground, but in the whole twenty thousand dollars' worth of machinery, there was scarcely anything whatever of English make.

After noticing the declaration of some American, that better Shorthorns will be soon grown in the United States than in England, alluding to the fact that a colt brought over by Mr. Ten Broeck is "the first favorite for the Derby at this very time," and confessing that "in some descriptions of machinery we only follow their lead, and the best of our reapers and mowers are either invented or improved upon by Americans," the editor concludes his article with the remark: "We are unwilling to see ourselves 'cut out' in any quarter, but more especially among our own kith and kin."

It is a seasonable moment to introduce this subject, just as our favorite Mechanics' Fair is about to hold its Ninth Exhibition. We hope it may be the means of calling out every variety of implement and machinery used upon the farm, and that the farmers, with some portion of their families, from every part of New England, will visit the renowned Faneuil and Quincy Halls on this occasion. It may be made a holiday turned to pecuniary account.

### LONG ISLAND LANDS.

We have before us a very interesting pamphlet upon "*The Plains of Long Island, N. Y.*," by WINSLOW C. WATSON, Esq., of Essex county, N. Y. From this pamphlet it appears that Mr. Watson has given those lands a close investigation, and his researches show them to be of a highly valuable character. He says, "I found it to be the general impression with intelligent men, that the farmers of Long Island enjoy, on account of the mild temperature of the climate, an average of about forty working days in the year more than those above the Highlands. \* \* It seems to be admitted that the island rarely suffers from drought. The sea air, always charged with moisture, constantly refreshes vegetation."

Mr. Watson speaks of the qualities of soil, cost of clearing, value of crops, &c., and shows that when a fair degree of intelligence and skill is expended upon them, they will return the most remunerating crops. The lands are certainly in the midst of the best markets in the world, with every cheap facility for getting their products to the

*For the New England Farmer.*

### JERSEYS AND AYRSHIRES.

I notice in the Boston *Cultivator*, of the 11th of August, an article of great interest to our farmers, on the "trial of Ayrshire cows" made in Scotland, in consequence of a prize offered by the Duke of Athol, for the cow which should give the largest quantity of milk in five days. Twelve cows were offered for premium, and the results of the four best are given, as well as the richness of the milk as tested by the lactometer.

If I am right in my figures, the four cows produced an average of one hundred and ninety-two pounds of milk in one day, and the average of the richness of the cream is twelve per cent. This is certainly a large yield, but the richness of the milk is not as great as I should have expected. I own four, and but four pure bred Jersey cows, and their milk is carefully and separately weighed at each milking, and tested by lactometers, holding a pint each, once during every month. I have taken at hap hazard a day's milking, the last that has been entered, from the slate, July 31. I find on that day that they gave but seventy-seven pounds of milk, against one hundred and ninety-two pounds given by the Ayrshire cows, but the average richness of the milk was twenty-one per cent., against twelve per cent. by the Ayrshires, tested by the lactometer. My Jerseys giving but seventy-seven pounds of milk, made over sixteen pounds of cream, while the Ayrshires, giving one hundred and ninety-two pounds of milk, made but twenty-two pounds of cream.

It must be recollected in comparing the quantity of milk, that we are in ignorance as to the mode in which the Ayrshires were fed—we only know that they were all kept up and treated together—nor do we know their condition as to the time of calving; but this we do know, that they were the four best out of probably the twelve best cows in the Ayrshire district where the trial took place. My Jerseys are not probably more than average specimens of their size, and have no grain, shorts or oil cake, feeding upon a rough, coarse pasture, and only now getting in addition to their pasture, the thinnings from my roots night and morning, in very small quantity. One of them is but two years old last winter, and dropped her first calf in April, and another calves early in October. All these considerations must be taken into account, in making any comparison, and if they are fairly weighed, it will, I think, satisfy almost any one that the old idea that Jerseys are poor milkers does not apply to them at the present time; the superior richness of their milk over all other breeds has never been disputed.

Now, Mr. Editor, I am not a rich, or a great man, like the Duke of Athol, but I will place in your hands fifty dollars, equal in value to the prize offered by the Duke, to be given to the owner of a pure bred Jersey cow which shall give the greatest quantity of milk in five consecutive days in the same month and days of the month on which the Ayrshire trial was made, the richness of the milk to be tested by the same sized and proportioned lactometer, provided you will undertake the task of seeing that the trial is accurately and fairly made, and provided twelve contestants can be found, willing to take a little pains for the purpose of ascertaining the maximum

product of milk that a good Jersey cow will produce. I do not think it necessary the cows should be kept together, though it would be better that they should be treated alike. If kept separately, an accurate account should be given of the method of feeding, &c. ESSEX.

REMARKS.—The time when the trial of Ayrshire cows spoken of took place, was last April, so that if any trial is desired here, there will be ample time before that month comes round again to make any necessary arrangements. The liberal proposition of our respected correspondent is in keeping with his constant and well-directed zeal in the cause. It will give us pleasure to second his efforts by any means in our power.

*For the New England Farmer.*

### SUPERPHOSPHATE OF LIME IN CORN HILLS.

Compost of Superphosphate and Muck—A fine field of Corn—Improvement of a tract of worn-out "plain land"—Benefits of deep plowing and high manuring.

I have to-day been looking at two or three corn-fields which are worthy of notice. My neighbor, R. Bradley, Esq., has a field of eight or nine acres of corn, on which he is trying an interesting experiment in the use of superphosphate of lime. The land having been for several years in grass, the sod had become too closely bound to produce well; and although it was not convenient to manure the land much this year, yet it was deemed expedient to plow it up and cultivate it in corn, preparatory to giving it a heavy dressing of manure next year. The field was broken up in November last, eight to nine inches deep, and in May last harrowed, then marked out in rows three and a half feet apart each way, a tablespoonful of superphosphate dropped in each hill, and the piece planted with corn, covering the superphosphate an inch deep with earth before dropping the corn. In one row, however, reaching through the middle of the field, a compost of superphosphate and muck was used, putting about a pint of muck and a tablespoonful of superphosphate in each hill. The compost was made up several days prior to use, so as to allow the strength of the superphosphate to become diffused through, and thoroughly absorbed by the muck.

I have been several times to see this row of corn, before to-day, that I might, at different stages of its growth, observe the effects of the mixture used in the hills. The corn in this row came up more evenly and vigorously than that in any other row in the field, and has maintained a superiority over the rest in color and size, at all times so apparent to the eye, that the row could at once be picked out. Not only is the growth of corn greater in this row than in the other rows, but the stalks are also more fully set with ears, and those larger than elsewhere in the field.

Where superphosphate is dropped raw into the hills, and comes in near contact with the corn, it is apt to eat off the young tender roots, and keep the corn back awhile, or until the earth has in a measure absorbed its strength, and thus more or less of the crop is retarded at a time when it



ought to be coming forward rapidly. But by composting the superphosphate with muck, it is so diffused and absorbed by the muck that the compost is in a state to nourish the tender roots at once, and send the plant forward with a rapid and healthy growth, giving it a remarkably deep green color. Then, too, the muck is sweetened and modified by the superphosphate, and furnishes a little fine vegetable food to nourish the corn in the fore part of the season, as well as makes a little mellow place for the roots to expand in. I can have no doubt, after what I have observed this year and last, but what if superphosphate is to be used in the hill for corn, it will pay well to mix it with old dry pulverized muck, in such proportions as to allow about a tablespoonful of superphosphate with about a pint of muck to each hill. The compost should be made a week or two previous to use, mixing it in a shed, or the barn floor, and keeping it under cover till used, and freeing the muck from lumps, sticks, &c., before mixing. If muck is not conveniently to be had, rich loam, or fine rotten mould from the woods, may be used with good effect.

Four or five years ago, Mr. Bradley purchased a tract of thirty or forty acres of old worn-out "plain land," and has from year to year since been bringing it, say eight or ten acres each year, into high cultivation. This year, he is redeeming the last portion of it, about two acres, from its sterile state, and has it in two fields of perhaps the very largest and best corn I have anywhere seen this season. The surface-soil of this plain had been quite exhausted by a long course of shallow plowing and close cropping with winter rye, as frequently repeated as the land would bear six or eight bushels of grain per acre. The soil had been so skinned to the depth of four or five inches, that ten acres of it would not support one cow decently through the summer—indeed, there was nothing of any value growing on it, after about the middle of July each year. The growth last year on the land which is now covered with such stout corn, was occasional sweet-ferns, mulleins, shrub pines, with here and there a few feeble poverty-stricken grasses.

This tract of land has however one important redeeming quality. Underlying the shallow-plowed and worn-out surface, there comes a fine-grained, salvy, unctuous subsoil, in texture between a sandy and a clay loam, which, when brought to the surface by deep plowing, exposed to atmospheric influence and mingled with compost manure, becomes a very active and desirable soil for tillage purposes, one which stands dry weather well, and does not bake or become hard and crusted over in a wet season. When first brought to the surface, it is of a pale yellow color, but by exposure to the air and to cultivation, soon changes to a good deep brown. The unctuous quality of this subsoil, as it is taken in hand and worked by one's fingers, does not exist in the surface-soil; that is gritty, and crumbles in loose particles; while the subsoil is soft and waxy. Mr. Bradley early determined that his best chances for speedily converting this tract into productive tillage land, lay in bringing up and cultivating the subsoil; and accordingly each portion of the plain when taken in hand for tillage, has been plowed deep at once.

In November last, the portions now in corn

were plowed with the sod and subsoil plow, ten to twelve inches deep. In May last, the plowed land was manured with forty ox-cart loads of compost to each acre, about thirty-five bushels to each load, made of about equal parts each of muck and stable manure. The compost was plowed in, four to five inches deep, with a light, sharp plow, gauged to the proper depth by a roller on the beam. The manure was thus placed where the mellow soil closed all around it, absorbing and holding its goodness, and yet keeping it near enough to the atmosphere to undergo a speedy and fertilizing decomposition, and where it is readily available to the growing crop in all stages of its progress.

After plowing in the manure, the field was lightly harrowed, then marked off each way in rows three and a half feet apart, a tablespoonful of superphosphate was dropped in each hill, and the corn planted, covering the superphosphate well with earth before dropping the seed. The corn came up well, and has been twice hoed, using the cultivator each way between the rows, at each hoeing. The corn at this time is of very large growth and splendid color, the great lusty ears standing out in every direction, presenting a striking contrast with the vegetation standing on the same land one year ago—indeed, one wonders at the change, as he realizes how great it is, and he is struck with what the art of man can do in the improvement of land, when rightly directed. The present crop of corn—accidents before harvest excepted—will fully pay every expense that has been laid out on the land on which it stands, leaving a greatly improved field, for the production of good crops for several years to come.

The other portions of this tract of land have been treated in precisely the same way as that above described, so that now the whole has been brought from a sterile, unsightly barren, to handsome, smiling fields of grain and grass. The first portion, deeply plowed, highly manured, and planted with corn three years ago, is now in mowing, producing a good quality and quantity of grass. The next portion, in corn last year, was sown with oats, and stocked to grass this season. The men are now harvesting the oats, and the crop is very stout, and the catch of grass perfect—showing the excellent qualities of this upturned, and cultivated subsoil for resisting drought and taking grass kindly; for at sowing-time, we had hereabouts very dry weather, which lasted well into June. Preparatory to sowing the oats, the land was plowed one or two inches deeper than when the manure was plowed in last year for corn, so as to bring the manure within immediate reach of the roots of the oats and young grass, and yet a little below the surface, to keep it from drying. Probably two tons of hay per acre will be cut next year on the land that produced oats this year.

It appears to me that the improvements effected on Mr. Bradley's old worn-out plain, are a satisfactory demonstration of the advantages of deep plowing, accompanied with high manuring, wherever there is a good subsoil to operate on. As I have remarked in former communications to the *Farmer*, many of the fields in the older settled districts of New England have a compact, fine-grained and fertile subsoil, but wholly or mostly unavailable to the crops, because, by a course of

invariably shallow plowing, an artificial hard pan has been formed within four to six inches of the surface, through which the roots of the crops seldom or never penetrate. By at once breaking through this crust, bringing up the subsoil, and exposing it to the atmosphere and to high cultivation, a remarkable freshness, mellowness and vigor is given to the land, the labor of the after-cultivation is much lessened, the soil, thus deepened and improved in mechanical texture, better resists the effects of extreme drought or moisture, the roots of vegetation having an enlarged range for food, moisture, &c., the crops are thereby increased, and when the land is again laid down to grass, the sod does not quickly become bound, because the roots, having a deep range, do not so soon web themselves together near the surface. The writer has seen some fine illustrations of the advantages of this kind of cultivation, several of which he has heretofore described in the *Farmer*, and about others of which he will have something to say hereafter. Notwithstanding that "tradition" is against him, he will not let the subject rest.

F. HOLBROOK.

Brattleboro', August 10, 1860.

#### VALUE OF TANNER'S BARK.

Seeking shelter from "a gust," the other day, we entered the new and fine barn of Mr. ALBERT GATES, of Stow, Mass., and after getting away from the wind and rain, which were becoming a little furious, about the first thing we noticed, was, that the leanto floors were sprinkled with dry tanner's bark, and that an ample quantity of it was conveniently stored up for daily use. Mr. Gates said, "most people look upon it as valueless, that it possesses no fertilizing properties whatever, and that the value of its mechanical influences upon the soil will not pay the cost of carting and application: but he thought differently. He had used it on sandy and gravelly lands with good effect, and he liked it on his leanto floors in the summer."

Though possessing some qualities capable of rendering it highly efficient when appropriated to purposes of enrichment, this article is yet rarely applied in this country as a stimulant to growing crops. Large accumulations of spent bark may be seen in the vicinity of most of our tanneries, where it might be obtained in any desirable quantities, and at a very low cost.

The following remarks, which we copy from the *Mark Lane Express*, (English,) relative to the value of this agent, are deserving of some regard:

"NEW MANURE.—Immediately adjoining the farm I occupy, is a tan-yard, with about twenty acres of poor clay land attached; it is so situated that I can, from my own fields, survey the whole at a single glance. A few years since I observed, in the middle of one of the fields a small piece which was at the time tilled to wheat, and looking very luxuriant; knowing that no manure heap had been placed there, I went to examine the

cause, when the tanner, who is an experimental farmer on a small scale, informed me that he had taken from the yard, four or five barrels of waste hair, and spread it upon this spot of about two yards. He has likewise turned to account the rotten tan from the yard by placing it thick in the orchards, and seldom fails of a good crop of apples; the trees look very healthy, and throw their shoots very strong; he is now drawing the waste tan on the roads to be trodden up, preparatory to its being used as a manure for land."

The author of the foregoing is Mr. DOBLE, an English gentleman, distinguished alike for his high scientific attainments, and his warm attachment to the farming art, which he has indefatigably labored to improve.

Where pure tanner's bark is used as a manurial application, it should be mixed with a considerable quantity of lime in a caustic state, and permitted to remain some time to rot, before being spread. In the foregoing case, the tan bark was doubtless oak bark—the English tanners employing that article, exclusively, in the preparation of their leather for the market. By mixing the refuse of the tan-yard with mould, muck, lime, crude ashes, &c., and composting it,—taking care in all cases that the quantity of caustic lime, or unspent ashes be sufficient to destroy the remains of the tannin in the bark, it may, no doubt, be made to contribute essentially to the fertility of any soil to which it may be applied.

In the centre of one of the pleasant villages of New Hampshire, there is a piece of land that was several years ago a mere tract of sand, that had never been known to produce any green thing upon it save here and there a half-starved running blackberry vine, or a stunted product of some hardy weeds. This land is now said to be *the most productive piece of land in town*. The owner informed us that he brought it to its present state of fertility mainly by the use of spent tan—that he applied it plentifully at first, and plowed it under ten inches deep, added a little manure and planted the land. This course he continued for several years, encouraged annually by the increasing crops, until he brought the whole field to its present high state of fertility.

In many of our New England towns there are large quantities of this material which may be had at trifling cost, and the success of this experiment may encourage others to make trial for themselves.

☞ The *Country Gentleman* says: We are informed that the amount of butter sent from the Greenfield station to Boston, for the year ending July 15, 1860, reached a total of 201,576 lbs., 100 1576-2000 tons. The number of cars of stock sent to Cambridge during the year was 242; of which 142 were sheep, averaging 12,780 sheep; 100 were cattle, averaging 1500 cattle; total, 14,280.



*For the New England Farmer.*

### WOMEN AND FARMING.

MESSRS. EDITORS:—I notice that one or two farmers' wives have made an effort at being heard through the columns of your paper, and if you will allow a farmer's daughter a similar honor, she will be much pleased. It is a well established fact, though not often discussed, that farmers' wives are the most hard-working class of ladies in existence, for the reason that they are actually *compelled* to be thus. We would ask if farming cannot be made sufficiently profitable to relieve every housewife of that amount of extra care and labor which she endures beyond what her physical strength is really capable of enduring? If not, young ladies have a reasonable excuse for not choosing farmers for husbands. Not that we would in the least depreciate so noble an employment, but would awaken the sympathy of the "lords of creation" for those wives and mothers who are compelled to bear up so bravely under ceaseless toil; whose vigils are disturbed only by the sonorous slumber of their husbands or the care of infancy; whose knowledge is rarely increased by time for reading and study, and whose ideas of human nature and the world are limited to their own native village.

I would refer to a young lady, a farmer's daughter, whose nature seems averse to the life she leads. She possesses more than an ordinary thirst for education, but alas, the profits of the farm are not sufficient to furnish means to expand the bright germs of intellect. She is excessively fond of music too, and can say,

"Music, O, how faint, how weak,  
Language fades before thy spell;  
Why should feeling ever speak,  
When thou canst breathe her soul so well?"

Yet when she suggests the propriety of a piano, father says, "The washboard must be your piano, for I have not the means." It may be said the shrewd can have means, but 'tis not always true of the farmer, and I would ask, should this young lady marry a farmer, or not?

Permit the farmer's wife to labor reasonably, provide her with books, pictures, music, and such things as accord with her taste and nature, and I venture to say she will be the most happy and honored among women, and truly adapted to her station, as mother and teacher. She can understand the teachings of nature, she can appreciate the loveliness of Spring, the fragrance of Summer, the rich harvest of Autumn, and the sublimity of Winter's storm. And with the farmer's wife thus educated, could we not hope for the elevation of a future generation? Why will not mankind see to it, and if possible render farming profitable as well as pleasant, and the farmer's wife educated and useful. No class of ladies can be better situated to embrace life truly, or develop refinement and genius, than the farmer's wife, if she can be allowed sufficient time and means.

A FARMER'S DAUGHTER.

*Enfield Centre, N. H., 1860.*

REMARKS.—If "*A Farmer's Daughter*," who writes us, has been a mechanic's wife, or has lived for a series of years in the family of a mechanic, we will confess that she is qualified to judge

whether "farmers' wives are the most hard-working class of ladies in existence," or not. We think she is in an error, while we think at the same time, that the wives of most farmers do work too hard. The piano and pictures, and many other articles of taste and luxury, are already on a good many farms, and are still finding their way there every day.

Does no mechanic ever say to his daughter,—*"the wash-board must be your piano, for I have no means"* to furnish any other? And are all professional men exempt from the necessity of such a reply—the clergyman, lawyer, physician, judge, artist and literary man?

It would be scarcely gallant for us to pronounce upon the fate of the young lady you introduce. We can only say that if she were our daughter, or sister, we should prefer her marriage to a farmer, rather than to a fourth-rate lawyer, or a doctor starving in his circuit of thirty or forty miles per day.

It is an evidence of intellect and power to rise above what are called adverse circumstances, to put them under our feet, and acquire those positions or things which we desire by a well-directed and indomitable will. All will not succeed, but many will.

### IMPORTANT DATES.

The following will refresh the minds of our readers as to the dates of the most important inventions, discoveries and improvements, the advantages of which we now enjoy:

Violins invented, 1477.  
Pumps invented, 1425.  
Paper first made of rags, 1417.  
Almanacs first published, 1470.  
Spinning wheels invented, 1330.  
Spinning jenny invented, 1759.  
Camera Obscura invented, 1515.  
Printing invented by Faust, 1441.  
Engraving on wood invented, 1460.  
Roses first planted in England, 1505.  
English shilling first coined, 1505.  
Diamonds cut and polished, 1489.  
Punctuation first used in literature, 1520.  
Gun locks invented at Nuremberg, 1517.  
Watches first made at Nuremberg, 1504.  
Soap first made at London and Bristol, 1504.  
Theatrical exhibitions first given in England, 1378.  
Muskets invented and first used in England, 1421.  
Post offices established in England, 1464.  
Printing introduced into England by Caxton, 1474.  
Maps and charts first brought to England, 1489.  
Fortifications built in the present style, 1500.  
Sugar refining first practiced by the Venitians, 1503.—*Wisconsin Farmer.*

He that would know what life is must have its trials as well as its joys.

## THE COMMON, OR SMOOTH, SUMAC.

This shrub, or sometimes small tree, is occasionally introduced into the grounds about dwellings, and where it has plenty of room to branch out, forms a fine contrast with other shrubbery and trees. It branches very irregularly, which leaves an open head, so that other plants are readily seen through it. It flowers in June, and its berries are matured in September or early October, and may be found all over the eastern slope of the Union. Whether it is common in the West, or not, we have never learned.

A vigorous plant, and one that has fully fruited presents a very pleasant appearance, after its berries have assumed their autumnal purple hue.

The berries are used in coloring morocco, and are a somewhat important article in commerce. We are not aware that it is injurious to the farmer, otherwise than, as it is a hardy plant, it propagates itself rapidly when left unmolested.

*For the New England Farmer.*

## CROPS IN IOWA.

Not until to-day has our crop of wheat been really secure, though we have seen *reports* to that effect, in the Eastern papers, for weeks. Two days ago, nearly one-half the wheat in Cedar, and many other counties of Iowa, was unstacked, with frequent showers and a very warm and sultry atmosphere, which, had it continued a short time longer, would have essentially damaged a large amount of our ample, excellent, and now *secure* crop. The late showers have put the corn and potatoes out of danger from drought, and our prospects for unprecedented harvest are very flattering.

I have frequently, and honestly, written discouraging letters about the West. I can now, as honestly, write one of a different tone. Indeed, I might almost repeat what I wrote some four or five years ago, about a certain "farm in Iowa," which cost the owner \$8 an acre, and which he proposed to nearly pay for, with the first crop of wheat. Why not? Figures, properly used, will not lie.

Here is my neighbor Starr, for instance, with 25 bushels of wheat to the acre, on land broken for the first time last year. At 75 cents per bushel, the current price at Muscatine and Davenport, that would be \$18.75 per acre. Allowing one-half for cost of raising and harvesting, and we shall have left \$9.37½ per acre.

But, just as good land as his or mine, can now



be bought in Cedar Co. for \$5 an acre; and certainly that can be paid for in one year, like the present. And there is my friend McNeil, "the bee man," (one of your subscribers,) rather badly in a year ago; but this year making honey and money, at the same time, at a rate that will clear him up, if no unusual disaster occurs, in another year. With Langstroth's hive, and a perfect *penchant* for bees and their work, he is like David "as a wonder unto many." In fact, it seems to run in the blood, for a bee seldom stings either him or his children, though they are among them all the day. And if a unamiable "worker" happens to light on the baby, as one did yesterday, it hardly hurts him enough to make him cry.

On the whole, we can now venture to invite our Eastern friends to come to see us, and *buy a bit of land*, which is as cheap as it ever can be, and as anybody ought to desire. M. K. C.

*Tipton, Iowa, Aug. 10, 1860.*

**IMPORTATION OF STINGLESS BEES.**—Our old friend, A. O. MOORE, Esq., who has done a world of good by his agricultural publications, and who went to Central America last year on account of his health, has just returned from Guatemala, and has brought with him two swarms of the stingless bees common to that country, which he has given in charge of Mr. Parsons, of Flushing, who will propagate them for the Agricultural Department of the Patent Office, which will in due time distribute them, if it is found that they can be kept in any part of the United States.

SATAN is on the tongue of him who slanders, and in the ear of him who listens.

*For the New England Farmer.*

### INFORMATION ABOUT WINTER WHEAT.

MR. EDITOR:—I seem already to have been anticipated in my inquiries in part, on the subject of wheat-growing, by your intelligent correspondents, "P." and "R. B. H."

It is well known to you and your numerous readers that I have been for the past fourteen years a zealous, and by some thought a fanatical advocate for wheat-growing in your midst. In my early attempts, which were eminently successful, an open influence was brought to bear prejudicially by a popular agricultural journal, which doubtless palsied the energies of many who were ready to move. But the thing now is a well developed, well established fact, and should deeply interest every New England man that tills the soil.

Your welcome correspondent, "R. B. H.," truthfully says, "By the way, wheat is becoming a staple in this region." "P." briefly says to the point, "Wheat will grow in Massachusetts as well as elsewhere."

Most heartily do I confirm both statements by an experience of six consecutive years with winter wheat, (a much safer crop than spring,) in the good old town of Andover, giving me an average of twenty-five bushels to the acre for the whole term. This story has been so many times told to your readers, they may look upon it as a familiar tale, but I beg to say, it would be a profitable catechism to remember and put in practice, the last of this, or the first of next month.

Never have I despaired since the commencement of my own experience, that New England would, in due time, raise all the wheat necessary for her rural population, and more or less for her seaboard and inland cities.

Fifty times repeated have I said, no grain crops will produce half the money per acre with wheat. A trial will prove it.

The mowing patches, alluded to in my last, not yielding over one-half to three-fourths of a ton of hay per acre, well manured, would yield 25 to 30 bushels of wheat, or 15 to 20 bushels without it. Now in the coming season of leisure, how quick, cheap and easy a few acres of wheat can be made for next year. Your hay on this land would be worth \$5 to \$7. The lowest calculation—say 15 bushels wheat, worth \$30, and the straw in market is worth more than the hay. Your wheat is clear gain. Facts are stubborn things, Mr. Farmer. Is it not an object to try it? Sod land is best for winter wheat.

H. POOR.

*Brooklyn, L. I., Aug., 1860.*

**THE HAW OF THE HORSE'S EYE.**—A correspondent of the *New York Commercial Advertiser* communicates the following description of this membrane from Sir G. Stephen's adventures in search of a horse:

"There is another variation between the horse's and the human eye, of a very important and peculiar character. At the inner angle of the eye is a dark membrane that, apparently at the pleasure of the animal, is shot rapidly over the eye like a veil; it is instantly withdrawn, and in its rapid transit cleans the eyeball of dust or foreign particles that may have accidentally lodged upon it. This mem-

brane is called the *haw*. It is not muscular, but its action is curiously explained; it is projected from its place by the compression, or rather depression of the eyeball into the socket, occasioned by the retractor muscle. When the eye is depressed by the play of this muscle, the elasticity of the fatty substance behind the eyeball causes the haw to extend itself from the corner of the eye, over the visible surface; when the retractor muscle ceases to act, the eyeball resumes its usual position, the fat returns to its place behind, and the haw returns to the socket from which it has been momentarily pushed forward.

*For the New England Farmer.*

### THE BIRDS OF NEW ENGLAND—No. 1.

Upon commencing a series of articles upon the Birds of New England, it may be well, in the way of a few introductory remarks, to present some general observations upon that class of beings called birds; and more particularly upon their classification by naturalists, and the terms employed to designate the different groups, with which the general reader may hardly be supposed to be familiar.

Birds are regarded as holding the second rank in the scale of animated nature, in point of intelligence and perfection of form, regarding man as the type; and though falling below quadrupeds, yet far surpass fishes, and the other lower classes of animals, both in sagacity and perfection of structure. As a class they are strongly marked, and widely separated from all the others. Their whole form adapts them eminently for flight in the yielding air; and though differing greatly among the different orders, are yet connected, in many instances, by almost imperceptible gradations, so that from the powerful, soaring eagle to the swimming and wading water fowl, or to the little, harmless wren, there is no sudden transition; and, indeed, it often happens that there is so much alliance between the different species of some groups, that they are only distinguished by close comparisons.

Birds are chiefly distinguished from the other warm-blooded, vertebrated animals, by their oviparous generation, in being clothed with feathers, and having the anterior members modified into wings, or organs of flight, and are the only animals possessed of true flight, save the bats, that have an internal skeleton. Their whole body is light, the bones hollow, and their general form is well adapted to cleaving the air. There are birds, however, whose wings are too small to support them in the air, but assist them in running, as in the ostrich, or in diving and swimming, as in the auks and penguins. The lungs of birds are very extensive, and their respiration is very perfect; their blood is found to be 12° to 16° warmer than that of other warm-blooded animals. The organs of the senses are similar in birds to those of mammalia; the sight, however, is developed in a remarkable degree, and the eye possesses great powers of accommodation to different distances. "Birds perceive even small objects distinctly, at distances at which they would be quite indistinguishable to the human eye, and are thus enabled to seek their food. Birds of prey also appear to possess in great perfection the sense

of smell;" but touch and taste are not much developed, save the latter to some extent among the parrot tribe. Hearing, however, is exquisite among the owls, and many nocturnal water birds.

The number of species of birds now existing, is variously estimated at from 5000 to 8000; and among this multitude, possessing widely different habits, and inhabiting various situations, we may look for modifications of their members, adapting them for these varied situations and circumstances. And upon these modifications are based the natural division of birds into orders, families, and genera, &c.; but more particularly confined to the beak and the prehensile organs, or the feet; though their general form, and anatomical structure are taken into account. The first division into land and water birds is sufficiently obvious; but naturalists differ much in respect to the number and value of the minor divisions; thus, while Linnæus and Cuvier make but six orders, others erect from twelve to sixteen, and still others, among them many eminent modern ornithologists, reduce them to five, by including the order *scansares*, of Cuvier, as a tribe, or sub-order, among the *insessores*.

The birds of prey are generally placed first in the list, constituting the order *raptoras*, (or *accipitres*, of Cuvier; Latin, *accipiter*, a hawk,) and are characterized by their daring and cruel spirit, powerful structure, hooked beak, and strong, curved claws, and by their preying upon birds, and the weaker quadrupeds. They include the vultures, eagles, hawks, buzzards, kites and owls.

The second order, and by far the most numerous, comprises the so called perching birds, or *insessores*, which will be more fully noticed hereafter. Cuvier observes, "Its character seems, at first sight, purely negative, for it embraces all those birds which are neither swimmers, waders, climbers, rapacious, nor gallinaceous. Nevertheless, by comparing them, a very great, mutual resemblance of structure becomes perceptible." The climbers, however, will be treated of as a part of this order.

The third order, *rasores*, embraces the poultry, or gallinaceous birds. The fourth order, *grallatores*, includes the wading birds; and the fifth order, *natatores*, will embrace the swimming birds. These last orders will be more fully noticed hereafter.

The orders admit, upon natural characteristics, of divisions into tribes, or sub-orders, and these again into families and genera. The birds of prey are generally divided into diurnal and nocturnal; the former including all the proper rapacious birds, except the owls, which constitute the latter division.

Of the diurnal birds of prey, we will first notice the rather limited family of the vultures, (*vulturida*), of which, however, New England can hardly claim a representation. They are birds of the largest size, of indolent and excessively filthy habits, feeding on any animal food that they can easily tear in pieces, and the most putrid and loathsome carrion does not come amiss. They are cowardly, and generally inoffensive, seldom attacking living animals, and only when pressed by hunger, and in companies. They detect their carrion food at a great distance, by the sense of smell, as is generally supposed, and often gorge themselves till they are unable to rise from the

ground. Chiefly inhabiting very warm climates, they most effectually perform the office of scavenger, and are generally protected by law, in the countries they frequent, for the valuable services thus rendered.

The noted condor of the Andes, (*vultur gryphus*, Linn.) of great size, and said to fly the highest of all birds, soaring to the height of more than 20,000 feet, or about four miles above the sea level, belongs to this family; as also does the celebrated bearded vulture, lamb-killer, (*vultur barbatus*, Gmel.) of Europe, but approaches the eagle in its more courageous spirit, attacking lambs, goats, and the chamois, and it has been known to carry off children!

Of the vultures inhabiting the United States, the California vulture, (*cathartes Californicus*, Cuvier,) inhabiting California, is the largest, approaching the condor in size. The black vulture, or carrion crow, (*cathartes atratus*, Rich and Swain,) though common in the Southern States, is seldom found to the northward of North Carolina, but inhabits the whole continent southward to Cape Horn. They are of quite singular habits, as the following extract from Wilson's American Ornithology indicates:

"In the towns and villages of the Southern States, particularly Charleston and Georgetown, South Carolina, and in Savannah, Georgia, the carrion crows may be seen sauntering about the streets, sunning themselves on the roofs of the houses and the fences, or if the weather be cold, cowering around the tops of the chimneys, to enjoy the benefit of the heat, which to them is a peculiar gratification. They are protected by law, or usage, and may be said to become completely domesticated, being as common as the domestic poultry, and equally familiar. The inhabitants generally are disgusted with their filthy, voracious habits; but, notwithstanding, being viewed as contributive to the removal of dead animal matter, which, if permitted to putrefy during the hot season, would render the atmosphere impure, they have a respect paid them as scavengers, whose labors are subservient to the public good."

It is also said they are extremely indolent, and that they will not eat of a carcass until it has become putrid, unless pressed by hunger.

The only representative of this singular and repulsive, yet useful class of birds that New England can lay claim to, is the turkey vulture, or turkey buzzard, (*cathartes aura*, Ill.) which is said to inhabit as far north as Nova Scotia, but is exceedingly rare in the Northern States, being only met with occasionally, but is quite common towards the South. In the zoological report of Massachusetts it is not mentioned as one of our birds; but Dr. DeKay, in the Natural History of New York, speaks of it as occasionally seen in that State; and probably it sometimes strays into the southern parts of New England, in the warm season. They, however, breed extensively in the deep recesses of the solitary swamps of New Jersey, hatching in May. No nest is made, but the eggs, two to four in number, of a dirty white, or pale cream color, splashed all over with chocolate and blackish touches, are deposited on the rotten wood of a hollow stump, or log. Upon the approach of any one to the nest, with attempts to handle the young, "they will immediately vom-

It such offensive matter, as to compel the intruder to a precipitate retreat." They are of the usual indolent and repulsive habits of the vultures; and Mr. Audubon, comparing them to a garrisoned half-pay soldier, observes: "To move is for them a hardship; and nothing but extreme hunger will make them fly down from the roof of the kitchen into the yard."

The turkey buzzard is two and a half feet in length, and measures six feet, two inches, across the extended wings; possesses a lofty, soaring flight, and, in common with the other vultures, has the head and neck bare of feathers; the under parts of the plumage are of a sooty brown color; the upper, black or brownish black glossed with green and bronze, with purple reflections. They are gregarious and harmless in their habits, never attacking living animals. J. A. A.

*For the New England Farmer.*

#### CULTURE OF WHEAT.

A few days since, I adverted to a fine field of wheat, now standing, on an average, more than five feet in height, on land of Gen. Sutton. I have since heard of other fields of equal promise, on lands of Mr. Brown, Mr. Berry and others. What surprises me is, that so few should cultivate a crop so desirable, when it can be grown with so much certainty, and with so little chance of blight. Most farmers, when about to lay their land down to grass, use barley or oats, and not wheat. Would not wheat be twice as valuable, and equally favorable for the coming crop of grass?

Perhaps the reason why blight does not come upon the grain while growing, is, that care has been used in the selection of the variety to be grown. If by a little care thus applied, a bountiful harvest can be secured, of one of the most palatable and essential supports of life, is it not the duty of all who have land suitable, to see to the growing of this crop? If my recollection is right, some thirty years since, there were many farmers in Massachusetts, who grew their own wheat. Then, for some cause, I know not what, the culture of wheat fell off; and a field of wheat became almost as rare a sight, as that of a white crow. I entertain the hope that a better time is coming, and the fields before mentioned give evidence of this. P.

August 6, 1860.

#### NUMBERING SHEEP.

A correspondent of the Battle Creek, Mich., *Jeffersonian* gives the following description of a plan for ascertaining the amount of wool produced by each sheep of a flock belonging to a New England friend whom he had recently visited:

"We were handed a sheet of paper upon which was noted the weight of fleece of each sheep in the flock; opposite was set the number of the sheep, a corresponding number having been branded upon the animal itself at the time of taking its last clip, by applying a mixture of lampblack and tar with cast-iron figures. This course had been pursued for some years, and its results were apparent in a wool crop brought up from an av-

erage of four pounds to over five, and a corresponding increase in the size and quality of sheep. The practice had been to slaughter and otherwise dispose of all animals ranking lowest in weight of fleece and to improve upon the quality of the remainder by judicious crossing."

#### EXTRACTS AND REPLIES.

*Ludlow, Vt., Aug. 14, 1860.*

MR. BROWN:—After an illness of over five months—an illness resulting from confinement to a sedentary employment in your city—I am once more enjoying the mountain air and the mountain prospects of my native State. To appreciate my enjoyment of the rides and rambles which I am now taking among these hills and valleys, one must have experienced the pleasurable sensations of returning health under similar circumstances.

Vegetation looks finely. There has been no drought here this season, and crops now give promise of an abundant harvest. There is some complaint about hay being rather light. There is considerable yet to be cut, and I believe farmers generally admit that the quality of hay is good, and the amount nearer an average than was expected early in the season. Showers have been frequent for about a week, and yesterday and to-day have been decidedly rainy. Fears are expressed that the grain which is cut and stooked in the fields will be damaged by sprouting. Considerable wheat is raised in this vicinity, and this, as well as other grain, is said to be well filled and heavy.

Garden crops look remarkably thrifty in this town, so far as I have observed; and particularly is it true of those in the village, where nearly every square rod of spare land is waving with an almost tropical richness of vegetation. Fruit trees are well laden, and even plum trees are bending with the weight of clusters of fair, smooth plums. I have looked at the fruit in several gardens, but have not seen a single mark of the curculio; and it seems to me that other troublesome insects are far less destructive here than in Massachusetts.

There is a woolen factory in this village, at which the operatives commence work at 5 o'clock in the morning, after half an hour's ringing of the bell, and close their day's labor at 7 o'clock in the evening, with a vacation of half an hour each for breakfast and dinner. Is not thirteen hours a day too many to compel boys and girls, men and women, to work in the noise and confinement of a factory? For a few weeks in the hottest weather, the dinner-time is extended to three-fourths of an hour. Yours truly,

A CITY MECHANIC.

REMARKS.—We are delighted to hear of the returning health of one of our valued friends and most intelligent correspondents, and fervently wish that firm health and a prosperous life may long be his right and left hand supporters.

#### CULTURE OF WINTER WHEAT.

I wish to know how to raise winter wheat; I shall make the attempt this season, and wish for all the information within reach to assist me.

Inquiring among my neighbors, I almost invariably get for an answer, "Don't know; never grew it; can buy cheaper;" &c., &c.

Now, will you be so good as to insert in the *Farmer* as soon as convenient, replies to the following questions:

1. The depth the ground should be plowed?
2. Best kind of seed?
3. Time of sowing?
4. Quantity per acre?
5. How deep to cover the seed?
6. What quantity and quality of manure?

*West Roxbury, Aug. 9, 1860.*

W. D. H.

REMARKS.—We cannot do better than to give you the practice of Mr. N. F. MORRELL, of Sanbornton, N. H., as contained in a letter of his published in the monthly *Farmer*, for July, 1859.

"Hundreds of farmers in this State do not raise this grain, simply because they think they cannot. I have tried both upland and intervale, and find it does best on upland where I never manure it. I always select good warm pasture land, (the older the better,) free from strong winds and standing water, and where the snow remains on as long as on any part of the farm. Break it up any time in July or August. Sow from the 20th of August to the 1st of September, at the rate of one and a half bushels per acre. Get it in two or three inches deep, if possible, with a plow or cultivator. After it is up, a coating of plaster, lime or guano, will help it very much, especially if dry. Prepare the seed the same as for spring wheat. Wash thoroughly, pickle in strong brine twelve hours or more, and mix with ashes or slaked lime.

In this way I get from twelve to fifteen bushels per acre, and think it doing well without manure. Have never tried manure on upland, but presume it would do well.

The kind of wheat called the White [Winter? Ed.] Blue Stem stands winter best. I have raised the above quantity, per acre, without applying anything but dry wheat, and simply harrowing it in."

#### SLATED ROOFS AND LIGHTNING.

In conversation with a friend a few days since, (a practical slater,) on the subject of electricity, he remarked that buildings covered with slate were as surely protected against the evils of lightning, as they could be by the rods commonly used; and in confirmation of the fact stated that lightning had not been known to strike within a distance of forty miles of slate quarries that are wrought. This was to me a new idea, altogether; and, if true, a fact of too much worth not to be generally known. The trifling difference in cost of roofs between shingle and slate is more than compensated in the protection which may be afforded in the use of slate. Now, sir, as you are supposed to know about everything, and have access to almost everybody, I hope that through this medium the facts may be brought out; and by so doing, you will render great service to your country. M.

Wilbraham, Aug. 9, 1860.

REMARKS.—We are fortunate in having a large number of intelligent *querists* and *correspondents*, and have no doubt some of the latter will shed light upon this subject.

#### FOWL MEADOW GRASS SEED.

I last week made inquiries as to the best kinds of grass seeds to mix with fowl meadow to be sown on low land. I now wish to inquire where the fowl meadow grass seed can be obtained, as I have not been able to find it? F. R. CRAIG.

Woburn, Aug., 1860.

REMARKS.—When it can be procured it is sold at the agricultural warehouses in Boston. The supply for three or four years past has not been equal to the demand. As the grass is an exceedingly valuable variety, and the seed is in demand, we hope large quantities of it will be brought to market.

#### GRAPE CULTURE.

In the August number of the monthly *Farmer* I find an article on "Grape Culture" from the pen of Mr. E. A. Brackett.

Reading that article has suggested to my mind several questions which I should be pleased to have Mr. Brackett answer.

First, with regard to the manner of preparing the ground. Is it advisable to trench a strong, heavy soil as deeply as he did his? Would not one foot answer as well for such a soil, as two for a light sandy one? I have thought such deep trenching might favor a late

growth of wood which would not be so well ripened as it would be if the roots did not penetrate so deeply.

Secondly, Are his vines protected from the winter? If so, how? I do not see how it would be possible to lay down vines trained upon the pyramidal plan.

Thirdly, With regard to the Diana grape, Mr. Brackett speaks of it as our most delicious native grape. Does he consider its quality superior to the Delaware, and is this last-named variety likely to prove to be as well adapted to this section as the Diana is? W. D.

Leominster, Mass., Aug., 1860.

#### CORN AND SQUASHES.

I noticed in the last number of the *Farmer* a short article from Henry J. Durgin, of Shaker Village, N. H., which induced me to measure the height of a field of corn growing here in old Massachusetts. Its average height is about ten feet; it is uncommonly well set with ears, many stocks containing three and some four ears. It was planted about the first of June; no manure has been applied to the land this season. Last season it was planted to cucumbers and manured in the hill. My largest squash measures over five feet in circumference, and is growing rapidly. Yours for "some squashes" and "some corn." W. H. W.

Shaker Village, Aug. 11, 1860.

#### MOUNTAIN CRANBERRIES.

The demand for cranberries is every day increasing, and their cultivation is getting to be quite a study. Among the experiments which have for several years exercised the spirit of Yankeeedom, is the endeavor to cultivate the common bog cranberry on upland. Where the upland is pretty moist, a tolerable degree of success has attended many of the experiments.

There is, however, a variety of mountain berry, belonging to the cranberry genus, which we think might be cultivated more successfully than the lowland kind. We last fall received a jar of this last kind from Rev. Mr. Pierce, of East Winthrop, who obtained them from Washington county, where they grow on the waste lands, and high lands in the Quoddy region. He also sent us a specimen of the vine which produces them. It proved to be what botanists have named *Vaccinium Vitis Idæa*, and called, commonly, "mountain cranberry," "rock cranberry," and "cowberry." We have seen it growing on the summits of the White Hills, and sides and peaks of other of our mountains. In the eastern section of Maine, it seems they are quite abundant, and are gathered in large quantities by the Quoddy Indians, and others, and brought into the market. They are a smaller berry than the lowland cranberry, but of a pleasant, acid flavor, and by some preferred to the others. We think this variety deserving some trials of culture as well as the other, and we also think success would follow the trial.—*Maine Farmer*.

BEAUTIFUL THOUGHTS.—Among some of the South Sea Islanders the compound word for hope is beautifully expressive. It is *manolana*, or the *swimming thought*—faith floating and keeping the head aloft above water, when all the waves and billows are going over one—a strikingly beautiful definition of Hope, worthy to be set down along with the answer which a deaf and dumb person wrote with his pencil, in reply to the question, "What was his idea of forgiveness?" "It is the odor which flowers yield when trampled on."

TO THE READERS OF THE NEW ENGLAND FARMER.

Nearly ten years have now elapsed since my introduction to you as the Agricultural Editor of these columns, and during all that time the communication between us has been harmonious and unbroken. This communication has been personal, as well as through the press, for I have from time to time visited you in every section of the State, mingled with your families, replenished my pen with your practices and their results in my favorite art, and more than one hundred times addressed you publicly in the endeavor to promote its interests.

In the progress of these events, the people of my native State have several times called me, unsolicited, to accept some public trusts. These I have accepted, and,—without forgetting the great leading objects of my life, the objects in which you are so directly interested,—have endeavored to discharge the duties of those trusts with promptness and fidelity.

One of the trusts thus confided to me was to act upon the Board of Trustees for the State Reform School at Westboro', an office to which no compensation is attached. I entered upon its duties in June, 1856. The law requires that I should visit the Institution *eight* times each year. The record there shows that I *have* visited it *twenty-five* times each year, and the *same* record proves that once in each quarter I have made a *private and thorough examination* of every department of the Institution, and that a report of each of those examinations has been *carefully considered* by the full Board, and its suggestions or recommendations adopted or rejected, as they commended themselves to the judgment of the Board. What I have done, each of the other Trustees has also done, with scrupulous fidelity.

On the 21st of July, three members of the Governor's Council, namely,

ELIPHALET TRASK, of Springfield,  
J. M. CHURCHILL, of Milton,  
JACOB SLEEPER, of Boston,

made a short visit to the Institution; they had been there previously on the 6th of July, and then ascertained that three boys were confined in some wooden lodges, and this second visit was to investigate the causes and nature of that confinement. I will not occupy space in giving their description of those lodges, or of the alleged treatment of the boys, for they have been laid before you in the papers of the day, as well as in the news department of the *Farmer*. The refutation by the Trustees, of the Committee's charges, has also been laid before you in the public papers, and it is not necessary for me to dwell upon them here.

I have mingled pretty freely with the world

through a period of half a century, and for two thirds of that time have been actively engaged in its business and cares, both of a private and public character, and in all my experience, I have never met a company of men that were, in my judgment, so assiduously and conscientiously devoted to any public trust, as the Board of Trustees of the State Reform School at Westboro'. *And the School to-day, in all its Departments, under an impartial investigation, will testify to this devotion!*

One or two charges made by the Committee, and not alluded to by the Trustees, in their statement, I will briefly notice. It is to be inferred from the language of the Committee, that the Superintendent was guilty of gross misconduct in employing one of the boys to report the language and conduct of others. With regard to this, I will say, that such service is usually voluntary on the part of the boys, and at any rate, is only resorted to in cases of considerable danger to person and property. *It forms no part of the system of government of the Institution.*

Complaint is made that "no record is kept of the causes or extent of punishment in the Institution." The truth is, there has been so little in the nature of punishment inflicted, that it had not occurred to the Trustees that a record was necessary. By referring to the report of one of my private examinations previous to the fire, I find that, although there were more than six hundred boys in the School, there was *not one in the correctional department*, and that it had been *entirely unoccupied for three months* in succession! In the early days of the Institution it was the practice to inflict corporeal punishment, but that practice was abandoned by the present Board, and has only been resorted to in a few instances of the most flagrant misconduct. My preference has been to deprive the rebellious of their personal liberty, to feed them on a plentiful and wholesome, but light diet, and "keep the door of mercy open to them," and by that earnest persuasion, evidence of which is contained in Rev. Mr. Himes' letter, to induce them to return to duty. But as the committee are horrified by this mode of punishment, and have suggested no other, it is a fair inference that it would be more agreeable to them to let the boys run riot, trample upon the rules sanctioned and required to be enforced by the Governor and Council, until all government was lost and the School broken down and ruined by its own internal dissensions.

I beg my friends to look, for a moment, at the very uncourteous attitude, (to use the mildest term that will apply,) in which this committee has placed itself. They went to the Institution without giving notice to the Trustees, and there examined six of the most criminal boys, took their



testimony,—the testimony of persons of whom society had purged itself, be it remembered,—and gave it full credence against the Trustees and Superintendent of the Institution! The crimes of these boys—rather men?—have been related in the defence.

Now, let us see who these Trustees and Superintendent are, whose reputation is left at the mercy of six criminals, *and without an opportunity either to examine or rebut their testimony!*

PARLEY HAMMOND, of Worcester, is the senior member on the Board. He has long been the cashier of a bank, is the Treasurer of the Institution, both on the part of the Government and the Board, and sustains a high reputation wherever he is known.

SIMON BROWN, of Concord.

THOMAS A. GREENE, of New Bedford, long a successful and distinguished Teacher, a worthy member of the Society of Friends, a gentleman of intelligence and practical wisdom, whose name is synonymous with benevolence and love, and who has been on the Board of Trustees from the foundation of the Institution.

JOSIAH H. TEMPLE, of Framingham, a Clergyman, in good standing, and a thorough scholar.

HENRY W. CUSHMAN, of Bernardston, a Farmer, the President of a Bank, and who is doing more than most men in the State to educate its youth. His reputation needs no exposition from my pen.

JUDSON S. BROWN, of Fitchburg, a Manufacturer, a sincere and earnest Reformer,—willing to devote his time and talents to the cause of humanity,—an upright Christian gentleman.

THEODORE LYMAN, of Brookline, a son of the Founder of the Institution, who, with his ample fortune, is devoting his time, and his rare powers of mind, to works of benevolence, and the diffusion of useful knowledge among men.

Five of these persons have been members of the popular branch of the Government, and two of them have been elected by the free suffrages of the people as Lieutenant-Governors, and had an honorable seat in the Council Chamber.

Having enjoyed these privileges, it will be presumed by the good people of the Commonwealth, that they ought to know something of the usages of the Council. They do know, that the following were, if they are not now, rules of that dignified body:

1. That when a man is accused, their knowledge of the accusation should be *held sacred and inviolate* until he could be heard in his own defence, and that any infraction of this rule was a gross breach of privilege.
2. That not only private "leakages" were reprehensible, retailed in a small way, but that all

information imparted to publishers, whereby a partial and imperfect knowledge of the transactions of the Chamber should be made public, was a gross violation of justice and decency, as well as a violation of privilege.

3. That all *memorials*, petitions, and papers of every description, that related to public affairs, and that were respectful in their terms, should receive the careful and impartial consideration of the Chamber.

I will not enlarge upon this point, but leave it to you to say, whether you have not seen paragraphs in the public prints, relating to public affairs, pregnant with "mischief-a-foot," when nothing had appeared *as official* from the Council Chamber. A proper sense of justice, nay, of common fairness, ought to have impelled the Council to present their charges to the Trustees, in the first place, and to have allowed their explanations and extenuating circumstances, if there were any, to have had their proper weight. If, *then*, the Trustees had continued their alleged "cruel and barbarous" Duke of Alvaisms\* upon the boys, they should have removed the whole Board, and *then*,—and not until then,—justified their acts by a publication of the facts in the case. The public had no right to these facts before, and if this publicity was made through ignorance, it was a "blunder," which has been said to be "worse" in a high public functionary, "than a crime," for the Council "were bound to know what they ought to know." It was ten times a *blunder*, on the eve of one of the most important elections we have ever had! Can this furnish the reason why, after the report had been "*unanimously accepted*," no action was taken to remove these guilty officers, and that the Institution was suffered to proceed under the alleged horrible "cruelties" practiced in it? Does not this furnish the highest evidence that the authors of this report *had no confidence in it themselves?*

The Institution is a noble one, and is doing a noble work,—more, by far, than its most sanguine friends ever expected of it. But it has its imperfections, and these are organic, not administrative, and they have been repeatedly pointed out to the Legislature in the annual reports of the Trustees. It is governed in the principles of parental love, of kindness and personal attention to its inmates. It is governed by a *rigid system*, but a humane one. There is no looseness or guess-work about it, and harmony of feeling and action abound within its walls,—but, in the language of its munificent Founder, "the institution

\* The DUKE OF ALVA was a General of Philip II., of Spain, and his historian says of him: "The world has agreed that such an amount of cruelty and ferocity, of patient vindictiveness and universal bloodthirstiness, were never found in a savage beast of the forest, and but rarely in a human being."—See Motley's *Dutch Republic*.

should be considered a place of *punishment* as well as a place for reform. It will otherwise do little good." If it were judged by the infallible test of Holy Writ, that, "*By their fruits ye shall know them*," it would wring the meed of praise from its boldest detractors. At the dedication of this Institution, Horace Mann said, that "if it should be the means of saving a *single* boy, it would repay the people of the Commonwealth for all their care and outlay." On coming out, some one asked Mr. Mann whether he did not overdo the matter a little, and if he really meant that saving one child would be a sufficient remuneration. "If it were *my* boy, I should think it would," was the quick reply.

Now, let us see what the institution *has* done. In the estimation of Mr. Mann, if but *one* boy is saved, all the cost and care is well expended—but I can show you by irrefragable evidence, that EIGHTY-THREE out of every one hundred of the boys subjected to the discipline of the Institution *have been saved*! And while this noble result has been secured, it has been done at a less expense, with a single exception, than by any other similar institution in the country.

I have been constrained to make these statements to my readers that my good name might not suffer in their estimation by the aspersions of the committee,—for, as one of the Trustees, I feel "bound to know what I ought to know," and will not shift upon the Superintendent blame for wrongs imputed to him for official acts which I have authorized. I have been cognizant of his management as Superintendent, and believe it has uniformly been judicious and merciful, and that he has always treated the boys in a fair and honorable manner, and in a truly Christian spirit. I also believe that any investigation by an impartial tribunal, however searching it may be, will prove the *charges of the committee unfounded*. Such investigation I invite, as a member of a branch of the State Government, which, if not co-ordinate with that of the Council, is entitled to fairness and respect. I have acted under a constant sense, that

"He serves best the Father, who most serves man,  
And he who wrongs *humanity*, wrongs Heaven."

Before closing, I desire to say, to each one of you who is in the habit of reading these columns, and under a deep sense of accountability to my final Judge, that, in my belief, there is *No just cause, whatever, for a charge of cruelty against the Superintendent, or of any neglect of duty in the Trustees*. What the motive is for such accusations, is not *entirely* clear. This is not the first attack, from high places, upon an institution that reflects credit upon the State, and upon humanity,—and these attacks have prejudiced the public mind, and embarrassed and injured the discipline

and prosperity of the Institution more than did the calamitous fire which occurred about a year ago. But, whatever the motive may have been, it seems clear to me, that the Committee, although emanating from the Council Chamber, *became the complete dupes* of several shrewd, but wicked and designing boys, and had not sufficient penetration to discover it.

Finally, how are we to stand before the world, as a State, and especially before our Southern brethren, with an institution in our midst, charged with "cruelties" and "barbarities" akin to the inhuman atrocities of the Duke of Alva, as described by Motley, who sent his victims to the executioners by scores, and who was the terror and scourge of an unoffending and unprotected people? This is the execrable wretch, fiend, the incarnation of all human wickedness and depravity, who affords the committee of the Council a parallel for the conduct of some of the officers of the State government! The newspapers stated that the report of the Committee was *accepted* by the Council. That term does not always mean that a measure is *adopted*. But whoever *sanctioned* the report, is equally guilty with its perpetrators.

These charges are not only grave in themselves, but they derive important weight in the source from which they come. If they were the hasty assertions of some disappointed politician, or the gloomy lucubrations of some editor, out of office, they would become the wonder of a day, and leave no taint behind. But such is not the fact. They have proceeded *from the Government of the State—from the fountain of Mercy and of Justice*, where we are taught that the balances hang even, and resentments never come! The victim of this power is *principally* a humble individual, and he stands before it appalled with its injustice, battered, and broken, and helpless in the impending ruin which surrounds him. Nothing now can save him but the PUBLIC VOICE, and to that Voice I confidently appeal for him and for myself.

SIMON BROWN.

SECRET OF SPEED IN THE HORSE.—One great secret of the speed of "Flora Temple" has been discovered. It has been found by measurement, that her stride—small as the animal herself is—is equal to that of a sixteen-hand horse. She wins by her long, low, locomotive style of going, which works with the saving exactitude of machinery, and wastes no power in unnecessary action, or in what is graphically termed "style."

THE HORTICULTURIST, for August, is filled with capital articles, is handsomely embellished, and is well sustained by the new Editor, PETER B. MEAD, Esq., aided by the skilful and honorable publishers, Messrs. SAXTON & BARKER, 25 Park Row, N. Y.

*For the New England Farmer.*

### FARM FENCES---No. 3.

MR. EDITOR:—In a former communication I mentioned that I might say something about the relative cost of fences, the quantity of land they cover, and the qualities one adapted to general use should possess. In my estimate, I do not claim perfect accuracy, as the cost of fencing will of course vary in different places, according to the price of lumber, the cost of labor, &c. These estimates will be taken in part from those made by sensible and reliable men, and for the rest I shall have to rely on my own judgment.

The average cost of the ordinary post and board or post and rail fence is said to be about 80 cents per rod, and the average duration of such fences not more than ten years.

The quantity of land covered by this fence will not exceed two square feet to the rod, but the plow cannot be run conveniently nearer than to within one foot of any fence, which makes a loss of two feet in width on both sides of any fence for tillage purposes.

To enclose an acre of land 20 rods in length, and 8 rods wide, would take 56 rods of fence.

56 rods of fence, at 80 cents per rod.....	\$44.80
Value of land covered by fence, at \$50 per acre.....	21
Loss of land for tillage purposes.....	2.20

Cost of fence and value of land covered by do.....	\$45.01
Cost of fence, and value of land lost for cultivation.....	47.01

Average cost of wall fences \$1 per rod—56 rods.....	\$56.00
Average width of do. 3 ft., value of land covered by fence..	3.17
Value of land out of reach of the plow.....	5.30

Cost of fence and value of land covered by same.....	\$59.17
Cost of do. and value of land lost for cultivation.....	61.30

Average durability of fence 20 years.

To build the zig-zag or Virginia fence, it is estimated, will require 14 rails per rod, and that cedar or chestnut rails are worth \$6 per hundred, which, with drawing and building the fence, will amount to \$1 per rod.

56 rods, at \$1 per rod.....	\$56.00
Loss of land on both sides would be nearly or quite.....	13.00

Cost of fence and loss of land for cultivation.....	\$69.00
-----------------------------------------------------	---------

Probable duration 20 years.

The cost of wire fences, as per schedule of prices of the New York Wire Railing Co., is \$2.40 per rod, with posts and screws.

For a fence 7 wires high this would amount to.....	\$134.40
Value of land out of reach of the plow.....	2.20

\$136.60

Here are figures which will enable any farmer to see that improvement is very much needed in this matter of fencing. The qualities a fence for general use should possess, I will venture to suggest, should be, in the first place, simplicity. Any farmer with a little experience should be able to build it. It should be cheap, in ordinary cases not costing much more than the common post and board fence, nor requiring more than 40 feet of lumber to the rod. It should be *straight*; no "wavy lines," no zig-zag fence—the most crooked thing the ingenuity of man has yet been able to invent—should be tolerated by any farmer where land and lumber are of much account, if a better fence can be had.

Farmers! just think of 14 rails to the rod, and \$13 worth of land lost for cultivation, in fencing

an acre of land. "Rail Splitting" is certainly an honorable occupation in some cases; but a man's energies had better be employed in something else than in building this kind of fence. It should be firm,—it should be able to withstand both winds and unruly cattle. It should keep its position on the *very worst heaving soils*, and resist ordinary currents of water. And last but not least, it should be durable. Every part of it should last at least 30 years, in ordinary cases requiring no repairs.

These are the requisites for a good farm fence, and no farmer should be satisfied with one that falls much short of them. CHAS. R. SMITH.

*Haverhill, N. H., Aug., 1860.*

### FATTENING ANIMALS—STALLS AND SHEDS.

In Scotland, where everything in farming is reduced to system, several experiments have been made in order to ascertain the relative value of the two modes of fattening cattle, above named. The animals were in one instance selected and divided as near as possible in regard to weight, &c.; five of them were placed in an enclosure well sheltered, and allowed a sufficiency of room, and the other five were placed in boxes or stalls. At the commencement of October, it was ascertained that those in the sheltered enclosure eat, daily, one hundred and thirty-four pounds, while those in the boxes or stalls consumed but one hundred and twelve pounds, thus demonstrating the doctrine of Professor Liebig, that warmth is an equivalent for food.

Towards the end of April—the experiment having occupied seven months—the animals were all slaughtered, and the following results were noted down:

Cattle fed in boxes, beef, 3,462 lbs.  
tallow, 376 lbs.

Cattle fed in yards, beef, 3,216 lbs.  
tallow, 301 lbs.

The present is an appropriate time for the farmer to give attention to this matter, and we hope experiments similar to the above will be made, and the results made public.

HOW CARROTS AFFECT HORSES.—The carrot is the most catemmed of all roots for its feeding qualities. When analyzed, it gives but little more solid matter than any other root, 85 per cent. being water; but its influence in the stomach upon the other articles of food is most favorable, conducing to the most perfect digestion and assimilation. The result, long known to practical men, is explained by chemists as resulting from the presence of a substance called *pectine*, which operates to coagulate or gelatinize vegetable solutions, and this favors digestion in all cattle.—Horses are especially benefited by the use of carrots. They should be fed to them frequently with their other food.—*American Stock Journal*.

*For the New England Farmer.*

### DOCTORING DOMESTIC ANIMALS.

MR. EDITOR:—I have noticed in the *Farmer* that its editor, in advising for the treatment of sick animals, goes in for what I will call "The progressive treatment." We will put no "pathy" to it. This is as it should be, and in accordance with reason and common sense, as I understand the matter. Every farmer who has stock of any kind, will sometimes have them sick. Sickness and death are written on every living thing. The farmer can often save himself much trouble, and sometimes expense, by the timely use of a few simple remedies, combined with a little knowledge. A little knowledge is not always a dangerous thing. My wonder is that there are not more sick animals, when we see the shameful manner in which many persons treat their dumb beasts. As I have seen this, I have thought the beast knew the most of the two, and if let alone, would be the better off. For some years past I have paid much attention to the diseases incident to our domestic animals. The subject is somewhat a difficult one, and it is often no easy matter to make out a correct diagnosis of what the real disease is; but I have found this more particularly the case in regard to the hog; and after being satisfied on this point, it is still more difficult to administer the remedies, from his "hoggish nature and his dirty home." We must judge of the diseases of animals as we do those of children—from the history of the case, and the symptoms present. Still I have found it much easier to satisfy myself as to the diseases of cattle than hogs; however, experience and close observation will enable us to come to pretty correct conclusions.

In my treatment of sick animals, I have always acted on the principle that what would be good for man, under like circumstances, would be for the animal, and I have never had occasion to feel dissatisfied with this course. The greatest "pud-ding head" out thinks himself qualified to prescribe for a sick animal, judging from what I frequently see; whereas, to treat them properly, requires long and close study, combined with observation among the sick, and a correct knowledge of their anatomical structure, though this is not absolutely necessary; but the former are; and I, and every farmer should rejoice that veterinary science is taking its proper place among the professions. We need ten, where now we have one, skilled in this branch of study; and I do not doubt, if we now had them, they would find it a paying business if they were properly located about the country. Here is a fine field open to our young men, who have a taste this way; one every way worthy of the highest order of talent; Who leads?

Before closing this article, I will mention a few remedies, which every one having a cow or a horse, will do well to have always on hand; they are the leading medicines for cure in most diseases, particularly of an acute character. The really skillful physician makes but little use of the materia medica; his remedies are few, and not complicated.

First, Aconite tincture stands at the head of the list. In all cases of fever and inflammation this medicine is useful, and I have never found anything yet that would take its place. Rivers of

blood have been saved to mankind by its use, and may yet be to cattle-kind. It is always safe. Dose: Put a teaspoonful of the tincture into a pint of soft pure water, and give a wineglass full once in four to eight hours; more frequently if the case is urgent.

Second, Arnica tincture must be placed in the first class of remedies; though this is better adapted to use externally than internally. In all cases of strains, injuries, bruises, soreness, lameness arising from any of the foregoing causes, and the like, there is no other thing which will compare with it. If any one doubt this, try it; that will settle the matter. It may be given internally, the same as aconite, in cases of severe injury. For external use, put three teaspoonfuls into a quart of soft water, and bathe the parts affected frequently. In the case of horses, where the legs are the part affected, I have often bandaged them, and keep wet with the medicated water, and rapidly reduced severe swellings.

Third, Bryonia tincture is another important remedy, and in connection with numbers one and two, about all that are necessary for the treatment of any acute case of disease the farmer may have to deal with among his domestic family. It may be prepared the same as number one, and given the same.

Case: Called to a fine young horse, which the night before had been driven seven miles at full speed, and left for two hours in a profuse perspiration, standing in a damp, chilly night air. The horse refused to eat, was dull, and quite stiff; pulse quick, strong and full; skin hot and dry; would drink all the water offered him. In fact, his owner considered him a "used up horse," and he certainly appeared like one. He wanted him bled, but this I refused to do. Treatment: To be deprived of all food, except a little meal stirred into a pail of warm water. Of this he was to drink often; to be lightly covered, and well rubbed with a cloth, twice a day, and to give the aconite as above every two hours. At my next visit, the following day, the horse was every way better, and his owner thought him not quite so poor property as the day before. His breathing was more easy and free, but he had some cough; ordered the treatment continued, and to give bryonia in connection with the aconite, alternating once in four hours; without following the treatment further, suffice it to say, that in less than a week the horse was as well apparently as he ever was; not so strong, of course. I may take this subject up at a future time. Farmers, use your brains more, and save your hard-earned dollars. N. Q. T.

*King Oak Hill, 1860.*

REMARKS.—We hope so. This is the kind of instruction most of us need.

### WHERE DO SEA-BIRDS SLAKE THEIR THIRST?

—The question is often asked, where do sea-birds obtain fresh water to slake their thirst? but we have never seen it satisfactorily answered till a few days ago. An old skipper with whom we were conversing on the subject, said that he had frequently seen these birds at sea, far from any land that could furnish them with water, hovering around and under a storm cloud, clattering like ducks on a hot day at a pond, and drinking in the

drops of rain as they fell. They will smell a rain squall a hundred miles, or even further off, and scud for it with almost inconceivable swiftness. How long sea-birds can exist without water, is only a matter of conjecture, but probably their powers of enduring thirst are increased by habit, and possibly they go without for many days, if not for several weeks.—*California Spirit of the Times.*

*For the New England Farmer.*

#### THE BAROMETER.

Although one of the web-foot fraternity, yet I take a deal of pleasure, and gain considerable information in perusing your valuable paper. I have noticed lately, inquiries of the usefulness of the barometer on a farm. I am no farmer, but having been a constant observer of that instrument for fifteen years or more, I give a few remarks for those who are interested, from my own experience. Henry Ward Beecher's laudation of the instrument would lead one to suppose that with the barometer for a guide, they would know precisely when it would rain or not. My experience does not lead to such conclusions. The words on the barometer, "Set Fair," "Fair," "Stormy," &c., are no guide whatever, as the barometer, properly graded, seldom falls to "Stormy," or rises to "Set Fair;" neither does a fall in the barometer always indicate rain; or a rise, fair weather; it may be owing to a change of wind—an increasing or moderating wind—or it may be owing to a storm or changing weather going on at some distance from us, but which may pass us by without any change of weather in our immediate vicinity.

With a southerly wind and a low barometer, we often hear people say, "How heavy the air is," because it causes depressed feelings; but the cause is, the *lightness* of the air, with which the barometer (showing the specific gravity) stands lower than with a northerly and bracing air, in which it is really *heaviest*, causing the mercury to rise.

With a "north-west wind," a falling barometer generally indicates a change to south-west; with a rising barometer, it indicates a change to north-east: with which wind, in fine weather, the barometer stands highest; and a falling barometer with the wind north-east, indicates a change to the south, or rain. With a south wind, a falling barometer indicates, sometimes, more wind, or rain; and it seldom rises before a change to the west ward, or north-west. But these rules are by no means invariable, and the barometer can only be depended on as an aid to form a judgment of what the weather may be, by those who have studied its variations for at least one year; and then they may very often be mistaken. As an aid, it has been very valuable to me as a shipmaster; but to a farmer who is inexperienced in its use, I think an investment in hay caps would pay much better; in fact, I have been deceived so often by its apparent indications, that I am almost tempted to say I never would use one again—but as it has been the means of saving many sails and spars, perhaps life, I still advocate its use by shipmasters.

I have known many heavy squalls and showers to pass unnoticed by the barometer. On one occasion I experienced quite a severe gale, and rain

continually rising barometer. This was in the vicinity of New York. The farther from the equator, the more the weather affects the barometer; and a south wind in south latitude has the same effects on it as a north wind in north latitude. There are many kinds of barometers, from the costly mercurial to the cedar and pine wood ones by the Mexicans, or a cracked bone of the human system. I heard of a captain who said he could tell by the skull of his second mate, (which had been fractured) when a storm was approaching, better than by any barometer. My experience has been with the mercurial and aneroid barometers; generally considered the best. Hoping to see an account of some of the new kinds, and their usefulness, by those who have used them, I remain, yours,

JACK CROSSSTREES.

*Boston, August 16, 1860.*

REMARKS.—Thank you, Captain Jack, you are the very man to tell us about the barometer. In an easy chair and slippers, how we should like to hear some of your ocean "yarns" in connection with that instrument. Please write again.

*For the New England Farmer.*

#### FLOWERS.

MR. EDITOR:—Having noticed in your issue of July 14 the inquiry of Mary as to the varieties of flowers best adapted to our New England seasons, I offer for her benefit, as I hope, some of my experience in that line.

To select from among many things that I have for some time proved, as well as from more recent acquisitions, those which endure without any especial care the cold of our winters, would dispense with many which must ever be favorites with the lover of flowers, and yet embrace very many of our choicest varieties.

Of the earlier blooming plants, the Narcissus and Tulip must ever prove desirable, both of which I have in their perfection, without trouble, the first white, and very fragrant; the last red, yellow and variegated.

Nearly or quite at the same time I have the Iris, white and yellow, the Ragged Robin, rose colored, Dwarf Phlox and Pæonies, of which there are many varieties; those, however, which I have cultivated longest, and prize very highly, being white, pink, rose-scented and single.

For hardy vines I have the Clematis or Mountain Fringe, Trumpet Honeysuckle, (monthly,) and Calistegia, this last bearing double, rose-colored flowers about the size of a damask rose, and continuing in bloom until severe frosts take from our gardens all that makes them beautiful.

Of Roses, some dozen of the choicer varieties should by all means be included. Of Lilies, orange, straw-colored and white. This last is more nearly allied to those requiring protection during winter than any other here mentioned, but so exquisitely beautiful and so fragrant, that for all care needed the grower will be most amply repaid.

The Wax Flower, white, though grown by me this season for the first time, will I presume, from its appearance, prove hardy. The Canterbury Bells, when grown in all shades, from white to

dark blue, are most beautiful. The double Hollyhock, especially the rose-colored, is really deserving of mention.

Again, for variety, we have Monkshood, blue, Barometer, blue, White Immortal, and Fall Phlox, with Pinks of various kinds, including the Picotee, a fine bedder.

Last, but by no means least, the Pansies, which are often in bloom before snow leaves the ground in spring, and after it has fallen in autumn or early winter, should it partially thaw, I having picked them as late as December. Of these we have an almost endless variety, than which perhaps nothing we have is more frequently admired.

I have thus hastily given the names of something like the number mentioned, of biennials and perennials as specified. Annuals I will not now refer to, except to say that for late blooming there are many most desirable and quite hardy, of which should it be desired, I will speak at some future time.

If "Mary," or any of your readers, should wish to obtain any of these, or other plants or seeds, and will give me their address, I can, perhaps, help them to obtain whatever they wish, at considerable less than usual prices, and offer some suggestions that may prove useful to inexperienced florists, should they be thus. A letter directed to Box 23, Richmond, Mass., care of the postmaster, will reach one who for the present will be known only as

LOUIE.

Aug. 14, 1860.

*For the New England Farmer.*

#### BEST PREPARATION FOR THE MANURING OF DWARF PEAR TREES.

MY DEAR SIR:—A correspondent in your paper of the 11th inst. inquires for "the best preparation sold for the manuring of dwarf pears, peaches," &c., making a very difficult question for any one to answer to his advantage, unless they have more knowledge of his soil than he has seen fit to communicate. For instance, it cannot be supposed that the same "preparation" would show equal benefits on a sandy or gravelly soil, that it would on a loamy one, or that the applications to a loam would produce the same effect, and to the same extent, that it would on a stiff clay.

In materia medica, it is an established fact, that the same remedy will not apply to all diseases. It is no less true that in the same disease, when the type varies, the prescription must vary to meet it. So the constitutional temperaments and habits of men vary, and the medicines that may be salutary to one, may be death to another. There are considerations without number to be regarded in the healing art, and minutia there, are worthy of close attention.

Climate, like constitutional temperament, has close connection with individual health and comfort, so that not only a change of food is often found necessary to the success of the individual who travels, but it must have a different preparation in widely different localities. If the Esquimaux should change his living to that of tropical fruits, it would probably be fatal to him at once. Let him change his residence for one in the burning zone, and live as the natives live there, and a more speedy fate would overtake him. The air

and his diet would both be averse to his organs of respiration and digestion, which have grown and matured for a more bracing air and less rapid digestive powers, so that stronger food is necessary to meet his demands.

The native of mountainous regions, where the air is always fresh and the water gurgling from the rock always pure, in the valley finds a want of those elements so sustaining to physical vigor. The damp fogs engendered with miasma from stagnant or sluggish waters, prey upon his vitals, while those who have inhaled them through life, scarcely feel their influence. His constitution is not adapted to the atmosphere, and it becomes ruinous to life and health.

Vegetables, trees and plants, like men and animals, have constitutions and physical adaptations to certain circumstances. The rush that luxuriates in mire, will not grow on the dry soil of the hill-side. The oak that assumes a giant's form among trees on the mountain, would pine and die in the low morass or shaking quagmire.

To cultivate his fruit trees, then, your correspondent has only to find what they lack in climate and constituents of the soil. And first, the soil itself.

Once, and for many long, beautiful years, our New England soil was well adapted to fruit growing, as the old orchards, now going into the decay of age, so faithfully testify. But two hundred years of exhausting culture has impoverished this soil. Why should it not? What acre of tilled land has not had many times in value in produce carried away from it and sold? How little of the price of these crops has been returned to the land to remunerate for the exhaustion it has suffered? Man who plowed and sowed, and gathered into the garner, has been too careful to absorb all the profits in payment for his labor, while poor mother earth, compelled to toil on to gratify his pride, has been stinted, year after year, in her daily food. It is in no way strange, that with such management, the strength and beauty of youth have fled from her countenance, that toil-worn and weary, she has become hard and unyielding, that the very pores of her surface are clogged, so that the surplus moisture cannot be thrown off, only as the slow process of evaporation absorbs. In a word, the soil of New England has, to an alarming extent, been roughly, shamefully managed, and the first and best preparation to be sold for manuring it for fruit trees, that we have ever tried, or can recommend, is steel,—well tempered, sharp, polished steel. Our mode of application would be to put the point of this steel, down into the earth so low and so sure as to open water courses sufficient to take off all superfluous moisture. This done, we would give it another application, and that would be to probe the whole surface to be set to trees to such a depth as to loosen the earth eight, ten or twelve inches deeper than any plow has ever penetrated. No matter if it is hard pan or clay, even. Bring up and expose it to the atmosphere, and if the land is well drained, it will make a good, friable soil, one that trees or any other plants will delight to throw their roots abroad in.

We have no doubt that many of the failures in fruit tree culture at the present time, arise from neglecting a proper preparation of the soil by thorough drainage and deep pulverization, and

we fully believe that a few trees well set, where these particulars are regarded, will, all expense counted, yield a quicker and larger profit than the many set out, without.

**Manures for fruit trees.**—In a climate like ours, whose summers are short, and whose winters are subject to great and often rapid changes of temperature, it is an object to secure a healthy growth of well-matured wood, rather than a rapid and spongy one. Consequently, heating, or very exciting manures are as likely to do injury as benefit. The very best we have ever tried, was a compost with muck for its basis, with lime or ashes as neutralizers. If leaves, bones or soil, or even a moderate quantity of yard manure, is mixed with these, it will increase the quantity and may, perhaps, improve the quality somewhat. But where only one material is to be had, I prefer the muck in preference to yard manure. It contains more of the elements of vegetable growth, and is less liable to collect and harbor insects injurious to the tree. It does not give off its food so rapidly as animal manure, but continues its effect for a longer period. And what makes it still more attractive, it is cheap, costing most farmers only the digging and preparation, and may be fed to the orchard in any quantity without impoverishing the grain field.

WILLIAM BACON.

Richmond, August, 1860.

*For the New England Farmer.*

#### BUTTERNUT TREES.

A lady recently informed me, that the above tree was injurious to fruit and vegetables in its vicinity, and consequently unfit for a garden.

I do not remember having ever heard or seen any statement of this kind before, and having a young tree at the bottom of my own garden, have examined carefully its surroundings. I find an asparagus bed near by has only one or two stalks within about three feet of it, although the bed was made originally within about six inches of where the tree was since planted. From this it would seem that asparagus is one of the things injuriously affected. On the other hand, rhubarb plants, on the other side, appear to thrive, though mine have not been prolific, and the stems have been small. This, however, might have been caused by want of manure. There has been no appearance of blight.

A large purple plum tree, about ten feet distant, bears profusely, and nothing else appears to suffer. The butternut has not yet borne fruit.

If it is a fact this tree is injurious to vegetation it seems desirable that the fact should be known. Can you inform us?

Will asparagus beds made in the fall, be as likely to do well as those made in the spring, if well protected from cold?

L. T. S.

Brookline, August, 1860.

**REMARKS.**—We have had no experience with the butternut tree, and hope those who have will respond.

In regard to the rhubarb roots, we cannot see why they should not do as well set in the autumn and properly protected, as the apple tree, or any of the plants which are set in the fall.

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY AUGUST NO. OF N. E. FARMER.

Page 345.—*Calendar for August, (Labor and Leisure).*—In this article we have some noteworthy observations upon *Labor and Leisure*, intended to counteract the too common and vastly pernicious error that the former of these is a curse, a painful infliction, a hardship and a necessity to be avoided and evaded as much as possible, while the latter is a thing to be desired, courted, and secured as much as it possibly can be. This is truly a most egregious and pernicious error, and so widely prevalent, and productive of evil in so many forms, as to make every effort to expose, eradicate and neutralize it a most commendable one. There are, doubtless, not a few who pass, with themselves and with the world, for good citizens and well-meaning members of society, who harbor this error in their own minds, and by their example and conversation countenance it in others, but would give it countenance no longer, if its mischief-working tendencies and results were once vividly and persuasively presented to their minds. Let it be considered, then, that *crime* in all its manifold forms, and *criminals* of all kinds, the pests and nuisances of society—are the legitimate offspring of this prevalent and pernicious error. For what is the *root* of crime? Is it not obviously, the desire or disposition to supply one's wants by fraud or force, by begging, borrowing or stealing, or by some similar methods, all of which are made by this delusive error to appear *easier* than the Providence-appointed way of supplying each one his own wants by his own labor, or by a fair and equitable exchange? Let this fact, then, be *duly* considered, that nearly all the crimes by which society is infested and injured are the fruits of this wrong idea as to labor, and who, but the laziest of the lazy, will any longer tolerate or harbor this dread of work, this monstrous error which is productive of such results!

Let the reader of these "Thoughts suggested," turn to the article under notice, and re-peruse those paragraphs of it which relate to *Labor and Leisure*, for they well deserve serious consideration by every one who has any regard,—even were it but a spark—for the welfare of man and the interests of society. Every such person will be persuaded, after reading and duly pondering the remarks referred to, that the law of labor is a *wise and beneficent* one; that work is the well-spring of a thousand streams of manifold benefit and blessing, as well as the preventive of the vice and wretchedness which flow almost universally from indolence and idleness;—that few are fitted to make a good use of leisure or exemption from the necessity of labor;—and that active employment, especially for high and noble ends, is the best state for man or woman in the present world. Those who endeavor to plant such convictions in the public mind are laboring for an excellent end; and when such convictions shall have become so common as to form an influential portion of public opinion, then will the lazy, the idle, the unproductive and all those who evade work, be judged and dealt with very differently from the way they are thought of and dealt with now. Now, those who are too proud or too lazy to work, are too generally held in honor. Then, they will be considered the



worst enemies of the interests and welfare of society, as they countenance and practice upon the very disposition which we have shown to be the root of all crime—the disposition to supply their wants from the products of the labors of others. The idler is not very distantly related to the criminal.

But the practical importance of the theme in hand, and of the reform needed in public sentiment as to labor, is leading us to extend our remarks perhaps to an undue length. We close by thanking the editor for those words of his which have suggested these thoughts, and by saying that honor and praise is due to all those who make similar efforts to correct the errors which do generally prevail as to the desirableness of exemption from labor.

*Page 347.—Culture of Tobacco.*—A very sensible talk upon the subject. Those who follow the directions here given will be sure to obtain a very excellent crop!

*Page 349.—Sweeney in Horses.*—A long rest in the pasture is a good remedy—often the very best—not only in this disease, but in several other of the diseases and lamenesses of horses.

*Page 353.—Honey Blade—Hungarian Grass.*—Two things are settled about this much puffed crop: 1, That the yield obtained by the editor, —about one ton per acre—is much nearer to the amount usually obtained than the large yields reported by those who have seed to sell at extravagant prices; and 2, That all the fine or fraudulent names which have been, or can be, invented for this plant, will never avail to make it anything else than a species, or variety rather, of millet. One thing more, I regard as settled and sure, viz., that the getter up of the pamphlet referred to is an arrant ———.

*Page 360.—How Farming was made Pleasant and Profitable.*—Undoubtedly agricultural books and papers in a house, a piece of ground for the boys to cultivate, with a share in its proceeds, will prove very effectual as an agricultural education, perhaps more so than studying botany and agricultural chemistry in schools or colleges; still the latter must help to make better farmers in 50 or 75 out of every 100 of such pupils, and though the former may be better than the latter, yet both are better than either alone, and better than even the best of the two. Let parents and the State authorities govern themselves accordingly.

*Page 363.—Plum Culture.*—There is much ingenuity and good sense manifested in the directions here given, and those who follow them, will be pretty sure to succeed.

*Page 365.—Superphosphate for Turnips.*—Before purchasing any superphosphate, farmers would consult their interest if they would procure and read a report on some of these articles by Prof. S. W. Johnson, Chemist to the State Agricultural Society of Connecticut.

*Page 370.—Uses and Value of Muck.*—Whoever may adopt the hints given in this article will have good cause after a year or two to thank the writer, and to esteem the *N. E. Farmer* as a valuable visitor and fireside instructor.

MORE ANON.

SEEDS AND CUTTINGS FROM SYRIA.—Ninety-four boxes and two barrels, containing a fine assortment of seeds and cuttings, have been re-

ceived at the Patent Office from Syria. The assortment is composed of varieties of wheat, barley, grape-cuttings, olives, scions of fruits and vegetable products. The cuttings, scions, &c., will be sent to the new propagating houses for experiment and increase, and no distribution will be made of the remainder until fall. Among the interesting plants may be mentioned the Lessabban. It makes an excellent article for hedges, and as a tree it is very ornamental. There are also seeds of melon, squashes, &c., camel's food, dates, walnuts, equal to the English, and probably well adapted to the Middle and Southern States. The mais tree is esteemed as medicinal, or rather prophylactic. The seeds sent were procured from the tree growing within the enclosure of the ancient temple of Solomon. It was not to be expected that all these articles would arrive in good condition. The length of the voyage at this season, with other circumstances, have caused the loss or death of a large proportion of them. But enough are left to yield a rich return for the moderate sum (one thousand dollars) invested in their purchase.—*Baltimore Sun*.

#### PLANT-FOOD AT THE SURFACE OF THE SOIL.

We are continually asked by correspondents whether manures should be plowed deeply under, or placed at the immediate surface. It is difficult to answer questions of so abstract a kind; if soils are underdrained and subsoil plowed, so that in all their parts they contain at all times the exact amount of humidity which would cover their particles, then a very large class of fertilizing materials may be placed at or near the surface. Those which are not volatile in their nature may indeed be used as top-dressings with full effect, for the dews and rains will gradually carry them into the soil, and in their passage downward they will undergo a greater amount of subdivision than if buried far beneath the surface; while in their descent will come in contact with, and so feed a greater number of roots. If of a soluble character, they will be carried on the surface of particles by moistures, from particle to particle, thus imbuing all surfaces, and disseminating themselves so as to do the greatest amount of immediate good to roots of growing plants. Not only will their efforts be thus rendered greater, but in their chemical effects upon the organic matter in the upper soil, new compounds will be formed required as plant-food, before their descent where the inorganic portion requires their assistance. Indeed, those proximates formed at the surface, and soluble in their character, being carried into the subsoil, deepen the available amount of fertile earth. None need fear that any material of value will sink below the depth to which the soil has been disturbed by the subsoil plow, for nature's laws prevent any such descent. The fact that pure water is to be found in wells, fully explains the fact that soluble matters cannot leach downward to any greater depth than that to which the soil has been disturbed, and that a greater depth of disturbance in the soil is called for, is proved by every post-hole from which the post of an old fence has been removed, for there the tuft of grass is always the tallest.

Lime, if used, should always be put on the sur-

face, and never be plowed under, for the form of its ultimate particle is such that rains and dews are sure to carry it downward between the particles of soil; and in over-limed soils, in which ditches have been dug, lime is always found resident upon the surface of the subsoil, and therefore, as during its descent its chemical action can only occur on particles through which it descends, the effect must be greater than if plowed under, for then the portion above it could not be affected by the lime.

Wood ashes should always be plowed in at the surface, for then the gradual leaching downward of the potash will be brought in contact with all the materials which can be decomposed, or altered in their condition, by its presence.

In the use of superphosphate of lime, it requires to be entered in the soil only so far as will cause it to come in contact with humid portions, so that its slowly soluble character can develop itself, and cause its downward travel to bring about all the chemical changes of which it is capable, and at the same time, present the requisite pabulum to roots.

We have made some curious experiments, that go to suggest the fact that phosphorus is the true chemical light of the soil. We all know that a plant grown in the dark has no color. The leaves and flowers are white, and when the soil is fully charged with soluble phosphates then this difficulty, in degree, is remedied, for the leaves are green and the flowers are varied and intense in their hues.

With barn-yard manure, and particularly in soils which have been before thoroughly disturbed, we highly approve of the plowing them deeply under, for then the volatile portions, while rising in the gaseous form after decomposition, will be absorbed by the soil, instead of being lost in the atmosphere, while the straw, litter, etc., will tend to loosen the subsoil, and leave passages through which the air may enter. And this *aeration* of the soil may represent, in degree, the benefits of under-draining and subsoil plowing.

This phenomenon may be observed in the travel of insects in the soil. Thus the seventeen-year locust, which in some localities has already appeared above the surface, presents holes to the depth of four feet through which it has risen, each one of which should chide every farmer who has neither under-drained nor subsoil plowed his land. It seems to be a wise provision of nature to do for the lazy agriculturist what he has failed to do for himself.—*Ed. of Working Farmer.*

*For the New England Farmer.*

#### REARING AND FATTENING OF SWINE.

Gluttons and dyspeptics have always been instructed by intelligent physicians to eat slowly, and masticate the food well, and thoroughly incorporate the same with the saliva, to secure good digestion and a uniform appetite.

The rule holds good with hogs and should be early taught and enforced, both for the advantage of the pig, and his owner. Everybody knows that a pig cloyed in early youth with strong food, greedily eaten, becomes a dyspeptic, and never does well after. Now, say to your pig, "learn to eat slow, and all other graces will follow in their

proper places." Perhaps many good farmers may say "it can't be done." Nothing easier. Give the weaned pig at 6 or 8 weeks old, in a clean trough, half a teacup of dry shorts or bran, and after his dry food is all eaten, give his drink, and increase the dry shorts according to the age and appetite till 3 months old, then add one-half Indian meal for two months, and then dry Indian meal till fattened sufficiently. I have followed this plan for five years past with success. I have 2 pigs now 5 months old that are fed one quart Indian meal each, three times a day, which takes half an hour to moisten and swallow, and this quantity, with the slops and dish-water, (all of which they take after their meal,) will carry them to 200, dressed, at 6½ months old. At one year old the same breed weigh 400. One at 9 months weighed 375. I have a sow that has brought me 126 pigs, and will have another litter in September.

L. LONG.

*Holyoke, Mass., 1860.*

#### EXTRACTS AND REPLIES.

##### UNKNOWN INSECTS.

I enclose a few insects now common with me. A fortnight ago I saw the first of them. They then were wingless—a few of them showing wings just starting. Now they are to be found upon apple, ash and maple trees alone. Three days ago I caught a few, winged and wingless—to-day they are all winged.

I have looked over "Fitch on Insects," but find nothing answering to their description, nor do I recollect reading of anything like them in "Kirby."

You may know of them, and they may be very common; if so, I shall get laughed at for my ignorance.

S. A. NELSON.

*Georgetown, Mass., Aug. 18, 1860.*

REMARKS.—These insects were about last year, but seem to have greatly increased this. When quite young they cluster together on the stem of the tree, and upon touching them suddenly diverge in every direction, like the rays of a star. We know not what they are, or what they are to make. Before the decease of the lamented Dr. HARRIS, of Cambridge, we had a person to whom we could send samples of strange insects and find out their names, habits, &c., but now we know of no one near us who will furnish that much needed information. We thank you (not laugh) for bringing these insects to notice. Quite likely now some one will tell us all about them.

##### ALKALINE COMPOSTS.

In reading your interesting articles on "Composts and Manures," I have not seen any reference to alkalies. I have a lot of pearlash which I want to convert into the most profitable fertilizer. I thought to compost it with a very fine meadow muck which I have. Will you be kind enough to give me some information on the subject, through the *Farmer*?

*Addison, Me., Aug., 1860.*

JOHN PLUMMER.

REMARKS.—We regard *pearlash* as one of the best specific fertilizers, to mingle with muck or loam. Several years ago, we were engaged in a series of experiments in which most of the special fertilizers were tested, such as guano, superphosphate of lime, ground bones, poudrette, salt, &c. Added to these was a cask of potash, containing 700 or 800 pounds. This we dissolved and sprinkled upon beds of old, finely-pulverized muck, and an equal money value of it was applied to the same space of land as was applied in the other fertilizers, and the results were favorable, when compared with the other tests.

## FINE SAMPLES OF FRUITS.

Having my attention called to the article of "E. C. P." in regard to the plum, curculio, &c., I agree with him that we may yet enjoy the luxury of the plum, but we must suffer the ravages of the curculio among our other fruits as well as the plum. When I first commenced raising the plum, about fifteen years ago, I was not troubled at all with that little enemy, but in a few years they began their depredations, increasing yearly. At that time there was no black wart on my trees, but as soon as the curculio had become very numerous the wart appeared also, which led me to the conclusion that it was caused by the same insect puncturing the wood, as well as the plum. Then this little pest confined himself altogether to the plum tree or its kindred fruits, but now, after becoming legions in number, their appetites have sharpened, and they readily lay hold of apples and pears, and almost all kinds of fruits that adorn our gardens. Some of my pears this season were nearly covered with the crescent figure of this hard shelled bug but, fortunately, the progress of incubation does not prosper in the pear, although where they are badly bit it makes the fruit stunted and inferior. When there is a great blossom and setting of fruit, like the present season, there will be enough escape, but when the reverse, the fruit will be mostly affected. Hence we see the reason of the plum, in some degree, escaping this year. I send you a sprig of my plums, and some specimens of early apples.

I send the William's Favorite, Early Harvest and Early Rose and one for which I have no name. Also, a sprig of plums, a fair specimen of the whole tree. Some of my plum trees fail, or but few.

I wish to inquire when is the best time to cut in pear trees and peach trees.

PETER WAIT.

REMARKS.—Thank you, friend Wait, for the specimens of fruit sent. Pomona must be smiling upon you this year.

We should think that after the leaves fall would be a proper time to head in peach or pear trees.

## ENTOMOLOGY—THE CROPS.

The old adage says "make hay while the sun shines," but as it is the first real rainy day we farmers' boys have had for some time, I will improve it by asking you through the *Farmer*, how a farmer's boy could obtain some knowledge of entomology. Could I do it without a teacher? What books would be necessary, and their cost? While haying, I have noticed the great number of different insects, and thought I should like to know more about them. We are having a fine rain now. Haying is closing up, and there will be about two-thirds of a crop. Grain of all kinds promises an abundant harvest. Corn will be good if there are no early frosts. Fruit will be much more plenty than it was last year.

SAM.

Enfield, N. H., Aug., 1860.

REMARKS.—Certainly, you can obtain a pretty good knowledge of entomology, or almost any other branch of learning, without a teacher. Take any of the common works on insects and read them well,—such as Kirby and Spence, Harris or Fitch, and long before you will get through with them you will learn the different orders, and the reason why they bear their different names. When you have done this, you will have learned what other steps are necessary in order to pursue the subject more thoroughly.

## CROPS IN VERMONT.

In this section of Vermont we are going through such an ordeal as we have never passed through before. Since the first week in April the drought has been severe, and what little vegetation did grow, the grasshoppers have taken. The farmers are in a panic in regard to the starving condition of their stock. It will take years to restore as good stock to the farmers as they had in the spring. Many of our choice flocks have already passed from us, at the greatest sacrifice, rather than see them in such a starving con-

dition. It makes them very poor to look over their farms and see no herds or flocks, or at least feel so. But we may as well bear in mind that "sufficient for the day is the evil thereof."

S. AIKEN.

Benson, Vt., Aug. 12, 1860.

## PASTURE LAND.

I have a piece of pasture on which I have commenced mowing the bushes, which I shall get mowed and burnt up before your next number is out. Part of it bears swale grass, and a part is covered over with sand or clay from the railroad, and a part of it plowed and planted with potatoes. Had I better plow it all up and plant what I can, and let the remainder summer till, or what shall I do with it?

J. M. C.

Holliston, Aug. 11, 1860.

REMARKS.—If you plant with potatoes what you can tend well next summer, you will certainly do much towards thoroughly reclaiming the land. Plow in the fall after the potatoes are harvested, then plow again in the spring and sow with oats and grass seed—and cut the oats for fodder. Prepare compost manure, and as soon as you can after the oats are cut, give the land a good top-dressing. This will place the land in good condition.

## HUNGARIAN GRASS SEED—OATS FOR FODDER.

I see by the *Farmer* that its columns are open for inquiries and replies: I have some Hungarian grass and I want to know how I can save the seed and the fodder, both.

In what state must oats be cut that are designed for fodder?

I. W.

Clarendon, Vt., Aug. 14, 1860.

REMARKS.—Grass left for its seed to ripen does not make so good fodder as that cut earlier, so that in saving the Hungarian grass for its seed, there will be a depreciation of the stem for fodder. We are not acquainted with the best process for securing the seed, but some of our attentive correspondents may be able to inform you.

Oats intended for fodder should be cut just as the grain is formed, and before it will show any milk, as it is termed, by pressing it between the thumb nails.

## SOWING CLOVER SEED IN THE FALL.

Please say whether it will do to sow Western clover in the fall? Will it stand the winter and not kill?

Barre, Aug., 1860.

A. BARKER.

REMARKS.—It is not the practice in New England, either of a few or many, to sow any kind of clover seed in the fall. The difficulty is, that it does not have time to root sufficiently deep before the cold stops its growth. The roots having only a shallow hold, are thrown out by the heaving frosts, and what is called winter-killing is the result. *Buel* says "a better practice would be to sow with buckwheat in July. The plants would have time to establish themselves well in the soil. We, however, think that spring sowing is to be preferred in the Northern States." So do we.

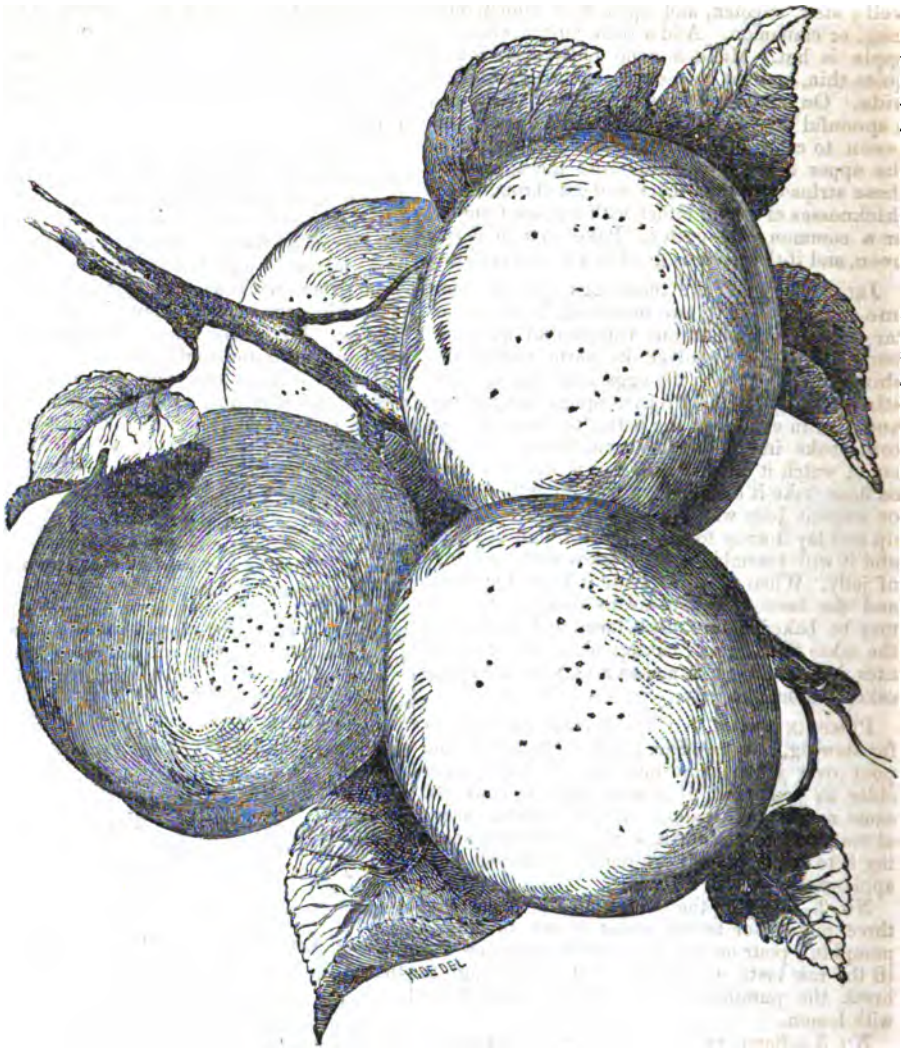
## NEW INSECTS.

I discovered on a plum tree in my gardens yesterday, a swarm of insects which somewhat resemble the curculio; on further examination I found them on my pear and apple trees; they all appeared to be moving up the tree. I should think I killed enough to fill a pint pot; others I discovered in the act of leaving the ground for the tree? A specimen of the live insect, I send you for inspection.

F. D.

Lynn, Aug., 1860.

REMARKS.—We spoke of these insects last week. Hope some of our correspondents will tell us what they are.



A GROUP OF APRICOTS.

In the *Farmer* of August 18, we said, "we are indebted to Mr. J. Q. A. WILD, of Quincy, Mass., for a cluster of the most beautiful apricots that we ever saw. Their fragrance is delicious, and our 'mouth is watering' for them while the artist is sketching their fine proportions. We have never seen fruit of this kind so handsome in the Southern States. They measure  $6\frac{1}{2}$  inches in circumference one way, and  $7\frac{1}{4}$  the other. Will Mr. Wild be kind enough to send us his mode of cultivation, soil requisite, &c., to accompany the engraving which we shall have prepared to illustrate them?"

In compliance with our request, Mr. Wild says,—“I am sorry that I did not send one of the largest ones with them; for there were a number that were three-fourths of an inch larger; but as they were not on the cluster, I did not think of sending one. As for the soil and cultivation, they are not different from those necessary for the culture of the pear and other trees. I think their fine growth is owing to the locality. The tree is trained on a trellis on the west side of the house, and sheltered from the northwest winds, and on cold frosty nights in the spring I have been in the habit of covering it with a sheet.”

*For the New England Farmer.*

# DOMESTIC RECEIPTS.

**APPLE PUFFS.**—Take sour apples that cook well; stew, sweeten, and spice with lemon, nutmeg, or cinnamon. Add a little butter, while the apple is hot. Make a good puff paste, roll it quite thin, and cut it in strips about three inches wide. On one-half of the strips put the apple, a spoonful in a place, leaving room enough between to cut the paste. Cut small openings in the upper crust directly opposite the apple; lay these strips over the others, and cut through both thicknesses of paste, either with a glass tumbler, or a common cake-cutter. Bake in a moderate oven, and if the paste is good it will be very light.

**JELLY CAKE.**—Take three eggs, one cup flour, one cup white sugar, two teaspoonfuls cream tartar stirred in dry, and one teaspoonful supercarbonate of soda dissolved in warm water; this should be mixed with the eggs and sugar, before stirring in the flour. Prepare square baking tins, and pour in enough of the batter to cover the bottom; bake in a moderate oven, though not too cold; watch it closely, as it burns easy; as soon as done take it out, and spread on either apple or currant jelly while the cake is warm; roll it up and lay it away to cool. Cut through in slices, and it will resemble round cakes with two rings of jelly. When properly made it looks tempting, and the taste is by no means disagreeable. It may be baked in any other form, and by making the cakes thicker, and baking about twenty minutes in a hot oven, it makes a very good sponge cake, without the jelly.

**PUMPKIN SAUCE, No. 1.**—Prepare pumpkin as for stewing, only cut finer; put in the kettle, and pour over it the same quantity of boiled sour cider as you would if it were apples; cook the same as for apple-sauce. If you wish to use it at tea-time, stir in a little sugar previous to sending it to the table. It can hardly be known from apple-sauce.

**No. 2.**—Prepare the pumpkin as in No. 1; add three pounds of brown sugar to ten pounds of pumpkin; pour on it a little water, and stew until the raw taste disappears; but not enough to break the pumpkin much. When done, flavor with lemon.

**No. 3.**—Same as No. 2, only use molasses instead of sugar, and spice while hot, with cinnamon. This sauce answers a very good purpose, and when apples are scarce, is well worth a trial.

**STEAMED INDIAN PUDDING.**—Two cups full of sweet milk, one tablespoonful of molasses, two eggs, one teaspoonful of soda, two cups full of Indian meal, one of flour, and one of dried cherries, currants, or other fruits, all thoroughly mixed. Have a tin dish ready, into which pour the batter; set it in a steamer, and cook it an hour and a half. Send it to the table hot, and serve with any good sauce.

**JOHNNY CAKE.**—Two cups full of Indian meal, half a cup full of flour, two cups full of sweet milk, one tablespoonful molasses, and one teaspoonful soda. Bake in a hot oven; it will be very light.

**MIXED PIES.**—One cup full of finely chopped meat, and two of pickled beets; mix over night,

and add spices to suit the taste. Pour on it some West India molasses, and a little good cider vinegar; let it stand till morning; then add one cup full of raisins, and one of currants, half a cup full of sugar, and hot water enough to make the mass of a proper consistency. Add a teaspoonful of butter to each pie before putting on the upper crust. Equally as good as pies made with apples, and in a scarcity of fruit, is well worth trying.

**IMITATION APPLE PIE.**—Take dried pumpkin, and cut it in pieces about the size of a quarter of a small apple; stew it till soft, but not enough to fall to pieces. Add one cup full of currants, or other dried fruit, to pumpkin enough for three pies; mix well, and put on plates the same as apple; then pour on each pie a teaspoonful of sharp vinegar; strew on some sugar, and spice to taste. Put on the upper crust, and bake. A good substitute for apple pie.

*Another.*—Take ripe pumpkin, cut it in small pieces, and stew until soft enough to beak easy with a spoon. Take it up, and add sugar and lemon, or other spice to suit the taste. Bake with or without upper crust.

**TOMATO PIE.**—Take ripe tomatoes, scald, skin, and take the seeds out. Line the plates with paste, and slice on tomatoes enough to cover each about as thick as you would for a tart; spice with lemon, nutmeg or mace; add a little butter, and cover with a good puff paste; bake well, and you will have a pie good enough for the best man in town.

**SQUASH PIE.**—Stew squash the same as you do pumpkin, allowing all the water to dry away before taking it from the fire. Pass it through a colander, and add a little butter, or sweet cream, and some new milk, but not as much as for pumpkin pies; stir in a small tablespoonful of flour and one egg to each pie; flavor with ginger and nutmeg. Pies thus made of the marrow squash have a close resemblance to sweet potato pie.

E. H. V.

**SALT AND FENCE POSTS.**—A correspondent of the *N. H. Journal of Agriculture* says:

I have just been to examine some that I set 30 or 31 years ago. I found them all sound and erect. That is, I tried every one of them, and found them to stand firm. They are white oak, about 12 inches square, with the part set in the ground unshaved. After setting, I bored into each post about three inches above the ground, with a two inch auger, at an angle of about 45°, and filled the hole with salt, and plugged it up. The plugs are all in, and the posts look as sound as when set. I put in about one-half a pint of salt to a post. As I tried none without salt, I cannot say whether it was the salt or something else that preserved the posts.

**WINTER WHEAT.**—Mr. JOHN STEELE, of Stoneham, Mass., showed us some winter wheat of his raising, where he obtained at the rate of *thirty-six* bushels per acre. It was very handsome. He thinks wheat can be raised easily and profitably in this State.



*For the New England Farmer.*

## MUSINGS AMONG THE MOUNTAINS OF NEW ENGLAND.

TOP OF GRAND MONADNOC MOUNTAIN, }  
AUGUST 16, 1860.

High up in the azure blue, 3500 feet above the "city of notions," I have dined to-day. This is a beautiful mountain, standing entirely alone in its native majesty, towering up into the clouds in its granite stateliness, with no other elevation around it to create monotony or destroy the romance of a full view of its base. Not a farm extends up to its base but some portion of it may be seen from this point. Deep ravines, huge piles of rugged granite all around, a beautiful farming country as far as the eye can extend, clouds flitting by just above your head—everything seems to inspire one's thoughts with lofty emotions and holy aspirations, and force upon his mind the impression that he is nearer God and the Heavens than those far down in the valley below. What a "masterly inactivity" seizes upon the imagination! Occupying the easterly slope of the mountain, reaching up to the very pinnacle where I stand, and stretching far away upon the rich valley below, lies the town of Jaffrey, one of the best farming towns in Cheshire Co., with its five beautiful little lakes, its many fine fields of wheat now ready for the harvest; its rich patches of corn, oats, rye, barley and potatoes, all looking exceedingly well; its hundreds of young fruit trees recently planted out, loaded with fruit; the old church at the centre of the town where the late Rev. Laban Ainsworth ministered to the people for nearly half a century, said to have been raised June 17, 1775, the day of the Bunker-Hill fight, and now used as a "town house;" back of this is the old burial-ground, which holds the first century of the town, among whom are the following names: Rev. and wife, the father, mother and one brother of Joel, Isaac and Edmund Parke, names familiar to every business man of Boston; O! and a few steps more brings me to the grave of a mother; "and she was the dearest mother that God ever gave"—

"She's sleeping in the valley,  
And the mocking bird is singing all around,"—

a sister and a brother.

Four miles from its base, in the easterly part of the town, situated upon both sides of the Contoocook River, is the beautiful village of East Jaffrey, unsurpassed in its healthy location, its romantic scenery, its magnificent hotel, erected the past season for the accommodation of parties visiting the Monadnoc, and the public generally; its beautiful school-house for the district school, (the best in the county,) fine dwellings, busy work-shops and factories; all this lies spread out before me as I stand upon this rock in the clouds and look away to the East. Upwards of 200 persons have visited this spot to-day. The present accommodations upon this mountain are meagre, but I believe ere long some person of means will seize upon the opportunity to build a fine stone house near its top for the accommodation of those wishing to board for a season. The sun-rise seen from this point, in a clear morning, is truly beautiful. In a clear, pleasant day, with a powerful glass, I think Bunker-Hill Monument might be distinctly seen.

About four miles from this point, directly north,

is the town of Dublin, another good farming town. Here is where the late Rev. — Sprague spent his ministerial life, about whom, in connection with the Rev. Laban Ainsworth before mentioned, so many curious anecdotes have been related. Here in Dublin, is the dividing ridge between the Connecticut and Merrimac Rivers. The church in which the eccentric Sprague used to preach was literally "the dividing of the waters" as referred to in the Scriptures, for the water from the north side of the house went to the Merrimac, and that from the south side to the Connecticut. Upon the western slope lie the towns of Troy and Marlboro'. Next beyond is the town of Keene, a wealthy and beautiful town. Far away in the smoky distance, faint and blue, rise the broken ridges of the Green Mountains.

The mountain cranberry grows luxuriantly to within a few feet of the top of this mountain, and the vines are now nearly red with a fine crop of fruit. I would suggest to persons experimenting with cranberries on upland to plant out some of this variety. The barn swallow is up here to-day twittering about merrily, while a large portion of them left for the South about the fourth inst. I had a fine flock of martins this season, which left the fifth inst. From some cause or other the swallows and martins have left about three weeks earlier than usual. The spring time is gone, the summer is nearly ended, and the sweet little songsters that came up among these mountains to warble their cheerful notes to the tillers of the soil, and obey the laws of propagation by multiplying their species, are nearly silent; the season of the rose, the noblest of flowers, is gone, but stupid is the man who will suffer his garden to be void of flowers until cut down by the icy hand of the north. But the most interesting of all seasons, the harvest season, is at hand. Never did crops look more promising than at this moment, in this section. The midge is doing some injury to the wheat crop here, but the earliest fields are so far advanced that but little damage will be effected.

East Jaffrey, Aug., 1860. L. L. PIERCE.

*For the New England Farmer.*

## IN-DOORS-FARMING.

MESSRS. EDITORS:—I noticed in your issue of June 30 a short article on "In-Doors-Farming," from a New Hampshire farmer's wife. I think, with her, that it is too often the case that the farmers' wives are the most hard-working class. Their cares and anxieties, it is true, are almost endless; still, I think the writer has enumerated some things that no farmer who cares for his wife as he ought, would expect her, as a general thing, to do. I think the milking, feeding hogs and turning the churn crank, belong to the men folks, as a general thing. But if they are sick, or unavoidably obliged to work unseasonably late getting in hay, or grain, before a rain, or anything of that kind, they will find no one any more willing than myself to help in these matters. No reasonable man will ask his wife to do these things, much less expect them, as a matter of course.

Another thing. I don't think it hurts the men folks to help wash. They do their share, and no small share either, at dirtying the clothes; why, then, should they not help wash them? perchance

they might be more careful. Two hours' work of a man with a washing-machine, on Monday morning, will help along the week's work in-doors more than twice that time can help along the out-of-doors work. My husband either himself helps wash or finds a hand to do it. He says it is cheaper than it would be to hire a girl, provided there was one to be found. No matter how rich a farmer is, he can't hire a girl to do house-work, in this region, for there are none to be had. Therefore, if we are fortunate enough to have daughters of our own, it is our duty to instruct them in all the branches of in-doors farming. And let us not allow the idea to creep into their heads that it is degrading to work, but rather teach them that it is honorable to *know how* to work, and to be willing to do it.

A NORTHERN VT. FARMER'S WIFE.

*For the New England Farmer.*

#### WHAT MAKES THE WATER BAD?

BY JUDGE FRENCH.

This inquiry is for the benefit of the rural districts, and of those who are supplied from wells. It is plain enough what makes Croton and Cochituate water bad, because do we not all read in the papers, how those great disgusting eels come squirming out of the pipes, leaving, nobody knows how many that have been long past squirming, all along the line, and have we not all seen the monstrous, horrid, and ill-favored creatures represented in shop windows, by those who sell filters, and by other disinterested persons? O, no! people who live in the country, do not drink that sort of stuff. And so of cistern water; country-bred people are not to be imposed upon with any of your rain water beverages, filtered and purified though it be, by forty layers of charcoal. Like the true prince in the fairy tale, who could feel a single pea in his bed at the bottom of forty feather beds, they who live in the country are not to be deceived by any substitutes for the pure and sparkling water of the crystal fountains.

Nevertheless, we do not unfrequently hear a mild murmur of complaint, as we visit our friends in the country, or call at a neighbor's in the village. At one time it comes in the form of an apology. "Our water is not so cold as we could wish, the fact is, there is something the matter with our well, and we are obliged to send to Mr. Smith's for water to drink." At another it takes the form of scientific investigation. "What *can* be the reason of this little disagreeable odor in our well-water? It is so very slight that perhaps you do not observe it." Of course, we *had* noticed it, and setting down an untasted glass, wondered how any body could drink a drop of it. Wonderful is the force of habit! Here is an illustration in point. We mentioned to a farmer's wife, that although turnips fed to cows would give a bad flavor to butter at first, yet after a few days, the

effect was not observable. "Yes," said she, "our folks tried that last year, and we found that after a few days, there was no bad taste to the butter, but when we came, months afterwards, to use the butter I had put down at the same time, we found the turnip taste as bad as ever; the fact is, we had all got used to the turnip flavor, so that we did not notice it." Yes, wonderfully kind is Nature! We are informed by a tanner who had been long in the business, that he had not smelt any thing for twenty years, and a lecturer on bees, at Yale, last winter, stated that after being stung a few times by bees, people usually suffered very little from their sting. Whether habit dulls the sense of pain, or whether the first half-dozen stings operate by way of inoculation, let doctors decide. If you wish to learn whether there is a bad taste to water, ask a stranger. Everybody perceives a peculiar quality in water to which he is not accustomed.

But to return to our question—What makes the water bad? Let us deal tenderly with our suffering friends. Nobody wants to be told plumply that he is daily imbibing the drainage of his vaults, stables and sinks, and pouring out the same delicious compounds to his wife, and children, and guests; especially nobody who lives in the country, where they boast of not only pure air and water, but even pure milk. Let us not add insult to affliction, by any rudeness in our mode of dealing with a subject so delicate. An innocent and respectable man may have an infectious disease, but that is no reason why he should be made to acknowledge it in the public streets. His physician will privately and kindly say to him. "The symptoms are plain, Sir, and the remedy is simple; we doctors know very well that every man considers himself an exception to all general laws, that he expects to draw the first prize in the lottery, and to be the last man killed in the battle. Do not trouble me with any protestations that it cannot be possible, nor say, 'Is thy servant a dog,' but wash in the Jordan, and be healed."

A hundred farmers who will read this paper, have been troubled with bad water in their wells. What makes it bad? Let us reason together calmly. You will agree that there is some cause. We know that the rain comes clear from the clouds, that is to say, substantially so, and that therefore the impurity which exists in the well-water is in some way acquired in its passage upon or through the earth. The source of the trouble is then to be sought near the well, because even impure water would be filtered by a long passage through almost any kind of earth.

Whence comes the water which we raise from wells? Primarily from the clouds. Then it soaks down, and in sandy soils usually rests on clay,



gradually percolating towards lower places, and bursting out on hill-sides and near swamps in springs. Wells in sandy places are usually mere holes where the rain water stands clear and pure, if it is not corrupted in its passage down from the surface. In soils not homogeneous, such as exists in stony districts, the rain water is collected by fissures and seams, and various obstructions, into little streams or veins, which we strike in digging, or which are drawn aside from their course by our excavation. This water is usually cold and clear, though often hard, from some quality acquired on its underground passage. "But the bad water does not come from those deep springs?" Certainly not, but as it comes from *somewhere*, let us inquire further. About forty-two inches of water annually falls on every foot of your farm. What becomes of it? It falls in your barn-yard, and you are too good a farmer to let it run off the surface, and so of your garden full of manure, and your fields.

Your sink drain carries somewhere a constant stream of filth, usually received into some mere excavation, and so of the vaults for matters still more offensive. Sometimes those receptacles are water-tight, of brick and cement, but on farms this is the exception. The vast quantity of rain water, with all the impurities acquired in all those ways, passes downward, and where does it go? It seeks the lowest level and outlet. We should expect a four-foot drain in ordinary cases to *draw*, as it is called, some twenty to thirty feet, and to take off the water down to nearly the level of its bottom, in forty-eight hours. A deep pit from which you should pump out the water would drain much further. You would expect such a pit to drain everything within many rods of it. All the drainage water would gradually find vent in that pit. Just such a pit is your well. It is the lowest opening for all the water that descends from the surface into the earth for a certain area. But the water is good a part of the year, and only very bad in summer. It is hardly civil to say that your broth is thinner when much diluted. We will therefore suggest that so large a quantity of pure water flows into and out of wells supplied by veins of water in the wet season, that the small proportion of surface water is not appreciable; or we may suggest that when the well is comparatively full, the surface water runs off at the surface, because it finds little or no descent toward the well. It is evident that no water can run into a well already full, and that the depth of the well for drainage, is its depth to the surface of the water.

We have been consulted many times on this subject, and often have suggested what has proved to be the true source in the particular case. The list of causes may not have a poetical savor, but

what makes the water bad in most cases, is, *first*, some dead animal, as a dog or cat, toads or frogs, and in sandy soil, angle-worms, which often crawl down for moisture and die. It is surprising how small a decoction of these dead creatures will give an "ancient and fish-like smell" to a whole well of water. *Secondly*, the drainage from stables and barns. *Thirdly*, and generally, the drainage from sinks and vaults, which, after a shorter or longer time, so saturate the earth that it cannot longer filter out the impurities, and they pass downward with the surface water.

Our article is already too long, and if the subject seems worth pursuing, we may speak of the remedies for existing troubles of this kind in the future.

*For the New England Farmer.*

### THE OLD BARN.

DEAR SIR:—The following, to me, at least,) beautiful fragment of poetry I chanced to read some time ago, as it was floating along on the public press. I know not whether you have seen it before, and even if you have, I think it will be new to most of your numerous readers. I therefore send it to you for insertion in the *Farmer*, if you think it worthy to occupy a place in your valuable journal. I know not the author, but its perusal will cause many a heart to travel back to the scenes of boyhood, while memory, ever faithful, will point to the *Old Barn*, situated on the old homestead, so aptly portrayed in the following verses—the scene of many a frolic and pastime in days long since gone by.

*Boston, Aug., 1860.*

JOHN F. TILTON.

Rickety, old, and crazy,  
Shingleless, lacking some doors—  
Bad in the upper story,  
Wanting in boards in the floors;  
Beams strung thick with cobwebs,  
Ridgepole yellow and gray,  
Hanging in helpless impotence,  
Over the mows of hay.

How the winds turn around it!—  
Winds of a stormy day—  
Scattering the fragrant hay-seeds,  
Whisking the straws away—  
Streaming in at the crevices,  
Spreading the clover smell,  
Changing the dark old granary  
Into a flowery dell!

O, how I loved the shadows  
That clung to the silent roof—  
Day-dreams wove with the quiet  
Many a glittering woof.  
I climbed to the highest rafter,  
Watched the swallows at play,  
Admired the knots in the boarding,  
And rolled in billows of hay!

ROOT CULTURE.—This subject was under consideration at a late meeting of the "Harvest Club" of Springfield, Mass. Seven members of the club had raised last year, an aggregate of 15,000 bushels—a single individual 4000. One

and a half acres produced twenty-eight tons of mangolds; one-fourth of an acre 250 bushels. Commencing early in September the lower leaves of the mangolds may be fed to stock. It seemed to be admitted by the club that carrots do not increase the flow of milk when fed to cows, but that turnips do. A correspondent of the *Country Gentleman* says that a person of his acquaintance who sold milk in Troy, N. Y., after careful experiments with various roots to secure the greatest quantity of milk, gave the preference to the sugar beet, and raised that exclusively while he remained in the milk business.

*For the New England Farmer.*

#### ABOUT A ROLLER AND GRASS SEED.

DEAR SIR:—What is the best kind of roller for farm purposes? Are they to be found at the agricultural stores in the city? If so, what is the material,—wood, iron or granite? And what the cost?

In answering the above, you will oblige one of your constant readers, and one, too, who has for many years been a book farmer, and for several years last past, a practical farmer. In this particular, he has had no experience, save the loss of a bushel of herds grass seed, sown two years ago, last of September, on a piece of light upland, not one seed of which has ever been seen, or heard from as yet, though the ground has not been since plowed. Another bushel of the same lot of seed, sown at the same time, on the meadow land near by, came up well, and has done well. Two acres of meadow land, prior to that time full of stumps, windfalls, withey bushes, cat-o'-nine-tails, bull-rushes, frogs, snakes, lizards, and all sorts of offensive smells in the height of dog-days, has been reclaimed, drained, and covered with yellow sand, in places where the plow did not reach the white two inches deep, spread from a horse cart in December, after the frost had stiffened the muck hard enough to bear, has produced since that time, what may be termed with propriety a heavy burden of hay. It was not weighed, but there was as much as could be made upon the ground. I send you, herewith one head of the herdsgrass, that grew upon the muck beds, 11½ inches long. This must not be taken as a specimen of all the rest. This is the only head of that length found; 7½ inches may be deemed nearer the average length of heads. Many heads were found eight, nine and ten inches, but this is the only one 11½ long. Why the herdsgrass seed took well on this, and proved a total failure upon the adjoining upland, I do not know. One farmer of some experience has told me, "it would have come, if I had rolled the land after sowing." He remarked, "The late Judge Hayes, of South Berwick, could never grow a good catch of hay seed on the light soil of his farm, until he used a roller." I therefore want a roller, if for no other reason, to experiment with.

OLD BERWICK.

*Rockingham County, N. H., 1860.*

REMARKS.—The rollers sold at the agricultural stores are usually iron, and cost from \$10 to \$30, according to size. Any small seeds come better

to have the earth pressed a little about them. Where grain is sowed, have you not noticed that it comes quickest and best in the tracks of the cattle?

#### THE USES OF MOUNTAINS.

Rev. T. Starr King, in his work on "The White Hills; their Legends, Landscape and Poetry," published by Crosby, Nichols, Lee & Co., thus pleasantly discourses upon one of the uses of mountains:

"Mr. Ruskin notes it as one of the most prominent uses of mountains that they cause perpetual changes in the soils of the earth. The physical geographers assure us that if the whole matter of the Alps were shoveled out over Europe, the level of the continent would be raised about twenty feet. And this process of leveling is continually going on. By a calculation, which he made in the valley of Chamouni, Mr. Ruskin believes that one of the insignificant runlets, only four inches wide and four inches deep, carries down from Mont Blanc eighty tons of granite dust a year; at which rate of theft at least eighty thousand tons of the substance of that mountain must be yearly transformed into drift sand by the streams, and distributed upon the plain below. On Whiteface mountain, of the Sandwich group, a slide took place in 1820 which hurled down huge blocks of granite, sienite, quartz, felspar, and trap-rocks, and cut a deep ravine in the sides of the mountain several miles in extent. But compensation was made in part for its destructive fury. An extensive meadow at the base, which had borne only wild, coarse grasses, was rendered more fertile by the fine sediment, here and there four or five feet in depth, that was distributed upon it, and now produces excellent grass and white clover. Take a century or two into account, and we find the mountains fertilizing the soil by the minerals they restore to it to compensate the wastes of the harvests. The hills, which, as compared with living beings, seem everlasting, are in truth, as perishing as they. Its veins of flowing fountains weary the mountain heart, as the crimson pulse does ours; the natural force of the iron crag is abated in its appointed time, like the strength of the sinews in a human old age; and it is but the lapse of the longer years of decay which, in the sight of its Creator, distinguishes the mountain range from the moth and the worm."

SHEEP IN TEXAS.—A Texan correspondent of the *Country Gentleman* says that he has been informed of one man who had 400 and others from 100 to 200 sheep frozen to death by the severe northers of the past season. One gentleman who had a varied flock of 500, containing many Merinos and common Mexican sheep, a few Oxfordshire sheep, a recent English stock from the flock of John T. Andrew, of Cornwall, Ct., lost sixty Merinos, &c., from his flock during the norther of the first of December, while the thick-fleeced Oxfordshires seemed quite indifferent to the cold.

### THE BAROMETER AND ITS USE.

The attention of the agricultural community having been called to this instrument the past season, more directly than ever before, mainly by the advertisements in our columns and in other Agricultural Journals, of the instruments manufactured by Messrs. John M. Merrick & Co., of Worcester, we propose in this article to explain briefly the character of the instrument, and its utility as a weather-gauge.

The word *Barometer* is derived from two Greek words, signifying weight and to measure. The instrument, therefore, is to *measure weight*, as applied to the atmosphere, or is, in other words, to determine the pressure of the atmosphere. It is well known that the weight of a column of air one inch square, and of the height of the atmosphere above the earth, is equal to about 15 lbs. This column will then sustain a column of water, mercury or any other fluid of similar size, and high enough to make it equal in weight. The column of water which can thus be sustained is 32 feet in height, the column of mercury about 29 inches. Galileo commenced, near the close of his life, experiments to ascertain why a column of water could be raised in a vacuum only to the height of 32 feet. Without completing these experiments he died, and left his pupil, Torricelli, to pursue the investigations. He used mercury; filling a tube, closed at one end, with the fluid, he placed his finger over the other end, which he then immersed in a basin of mercury, holding the tube upright. Upon removing his finger, the mercury in the tube sunk and finally rested at a height of 28 inches above the level of that in the basin. Repeated experiments resulted in the same way, and thus was discovered a principle in natural law which is as unchangeable as the nature of the Creator.

The Barometer thus being invented, it was not long before the changes of the atmosphere were discovered to affect it. Pascal, a French philosopher, also inferred, and established the truth of his inference by experiment, that the Barometer would indicate a lessened pressure of the atmosphere by ascending with it above the ordinary level of the earth's surface. These experiments were conducted in the years 1642 to 1648. Numerous attempts have been made to modify the form of the barometer, but those now most approved are essentially the same as Torricelli's, a straight inverted tube, about thirty-two inches in height, and mercury as the measuring liquid. Some have been made where no liquid was used, but the weight of the atmosphere was determined by its pressure upon the sides of a metal box from which the air had been exhausted. The mercurial barometers are, however, the standard, and much preferred by scientific men.

It is obvious that the weight of the atmosphere is not always the same. The presence of moisture, the variations of heat and cold, and the force of the winds, all operate to make the weight of the atmosphere at any point, an almost constantly changing quantity. Observations for now more than two hundred years have enabled us to judge with much accuracy, by these changes in the weight of the atmosphere as indicated by the barometer, of approaching changes in the weather. It has been found that almost invariably certain atmospheric changes precede a change of the weather from wet to dry, or from dry to wet, and that the barometer never indicates so high an altitude during a storm as during dry weather. These observations have established a set of rules for judging of approaching changes of weather, which we shall give at the close of this article.

The index affixed to some barometers, marking upon a circular disc the height of the mercury, with the alleged corresponding condition of the atmosphere, is of no value, and is calculated to mislead. In fact the altitude of the barometer at any given time is not alone a guide to the weather which may follow, but the true guide is—whether the height indicated is more or less than that indicated a short time previously; whether the mercury is declining, or rising, at the time of the observation.

There are also changes of the barometer in our latitude, which indicate no corresponding change of weather. For instance, the mercury during fair weather may stand at a high altitude in the morning and decline a little towards the middle of the afternoon, with no variation of the weather following. But should this change *continue*, and the mercury still decline, and *not return* towards midnight to its altitude in the morning, then a change is sure to follow. We notice this change in a Timby's Barometer which hangs by our side as we write this—Tuesday P. M., (Sept. 4th.)—which has declined one-tenth of an inch since 9 o'clock this morning. As it fell in a similar manner yesterday, and rose again at nightfall, we apprehend no change unless this decline continues. It was a knowledge of these changes which led us last week in noticing this instrument, to caution people against imputing to that, faults which exist only their in own ignorance of its principles, and to advise them to obtain an understanding of the laws which govern it, before judging falsely of its indications. Mr. Timby's Barometer is a simple instrument, its indications plain to be read and easy to understand. We believe it to be thoroughly made, as the mercury has that brilliant lustre which bespeaks its purity, and in inclining the tube it strikes against the top with a sharp click which indicates a perfect vacuum. These points show a correct construction; and as the principle of

the barometer's action is unchangeable, it follows that a correct and careful construction of the instrument is all that is needed, to make it as perfect as any instrument of the kind can be.

This article is already longer than we designed, and we close by giving the following rules from a distinguished English authority, which we advise all who own a barometer to preserve and consult:

1. After a continuance of dry weather, if the barometer begins to fall slowly and steadily, rain will certainly ensue; but if the fine weather has been of long duration, the mercury may fall for two or three days before any perceptible change takes place; and the longer the time that elapses before the rain comes, the longer the wet weather is likely to last.

2. If, after a great deal of wet weather, with a low barometer, the mercury rises slowly and steadily, fine weather will come, though two or three days may elapse before the change; and the fine weather will be permanent in proportion to the time that passes before the perceptible change takes place.

3. If a change of weather immediately follows the motion of the mercury, the change will not be permanent.

4. If the barometer rise slowly and steadily for two days or more, fine weather will follow, though it should rain incessantly during these two days. But if on the appearance of fine weather, in the above instance, the mercury begins to fall again, the fine weather will be very transient. Apply the reverse of this to a change from fair to rainy weather.

5. A sudden fall of the barometer, in spring or fall indicates wind; in the summer, with a sultry atmosphere, an approaching thunder-storm; in the winter, if after continued cold, a change of wind, with thaw and rain. Or should the cold be unabated and the mercury fall, snow may be expected.

6. Rapid fluctuations of the barometer do not indicate permanent change of weather; only the slow, steady and continued changes of the mercury.

Local atmospheric influences may vary these rules somewhat, and therefore experience is necessary to enable a person to judge with entire accuracy in any case.

*For the New England Farmer.*

#### CORN AFTER RUTA BAGAS.

MR. FARMER:—Although a mechanic by trade, I am not strictly one by nature, for I take a great interest in the farming world, and enjoy no little pleasure in reading many articles on the subject in the *Farmer*. Many times I have been tempted to reply to inquiries, but thinking that there were many more capable of doing so than myself, I have deferred until now. In perusing the pages of your issue of the 18th inst., I noticed an article by "T. M.," which contained some ideas which appeared rather erroneous to me. He says "Neither corn nor tobacco will grow after ruta bagas."

He adds, "Why not? What will?" I know nothing about tobacco, (and am not desirous to learn,) but I do know that corn will grow after ruta bagas. While writing, I can look out upon a piece of corn, which looks as well as any I have seen this year; it is well silked, and has not a few ears, and last year at this time there was a good piece of ruta bagas upon the same ground.

Perhaps the "secret of success" is this: The man who cultivates the above-mentioned ground uses a large quantity of wood ashes.

*West Minot, Me., Aug., 1860.* OBSERVER.

*For the New England Farmer.*

#### FARMERS' WIVES AND DAUGHTERS.

*Farmers' Wives Hard Workers—The Other Side—Farmers and Mechanics—Pursuit of Knowledge under Difficulties—Latin Lessons—Churning and Frying Pancakes—Mountain Girls must Hunt for more Sunshine!*

MR. BROWN:—Will you allow another "farmer's daughter" to speak "through the columns of your paper?" Not in pity and in sympathy for that much abused band of farmers' wives,—but rather to congratulate them upon their happy situation; and also to correct some erroneous ideas advanced by our friend from the "Old Granite State."

Having spent considerable time in mechanics' families, I may safely say, that it is not a "well established fact, that farmers' wives are the most hard working class in existence;" that their labors, generally, are not more arduous, and that they have quite as much leisure for improving the mind, as they would have in other stations of life.

Is there not as much intelligence and refinement in a farmer's family as in a mechanic's? A farmer's wife whose "ideas of human nature and the world are limited to her native village" can scarcely be found. And a very large proportion of our present teachers are from farmers' families. Does this show that their advantages for education are limited? There is less real poverty among farmers than among mechanics. But suppose, in some instances, rigid economy is necessary in order to live comfortably. The "expansion of the germs of intellect" is not dependent upon the "profits of the farm." Any brave-hearted, courageous girl, may acquire a good education, although a course of study at a public institution is not permitted.

Very little money, (and a willing heart will find ways to earn that little,) suffices to furnish all necessary books; and no one who has not in earnest tried it, is aware how many leisure moments there are in a day, which may be devoted to study. I assure you that a Latin lesson may be very readily committed to memory, even while turning a churn-crank, or frying "pancakes!"

With regard to the young lady mentioned by the "farmer's daughter," permit me to say, (and I have no doubt that you thought the same, Mr. Editor, although too gallant to express it!) if said young lady refuses to marry a farmer, simply because she is fearful of hard work, and because he has not wealth to provide a piano and large library, she deserves to remain single through life.

It is the fashion here in Massachusetts, when we cannot afford a piano without being in debt for it, to make all the music we can without it,—

and economize, with faith that one day it will be forthcoming, "free and independent."

No heart need pine for pictures upon the walls, when all about us we have paintings more beautiful than ever human artists could form. Here, from my window, is a view,—a blue lake resting like a gem in its setting of foliage, and the "everlasting hills" touched up with a golden sunset light,—a view which fills my heart with gratitude that my home is far from the busy town,—that I am a farmer's daughter.

I trust our mountain sister will, by searching, find more sunshine in farm life than she now dreams of; and not doom the "rising race" of young farmers to perpetual bachelorship, by "striking so mournful a strain." ANNA.

W—, Mass., 1860.

#### EXTRACTS AND REPLIES.

##### SUCKERS AMONG CORN.

I wish to inquire of you, or some of your farming correspondents, if any advantage is derived in cutting out the suckers among corn? I have a field of corn which is very stout; it is planted four feet apart each way, and I have left only four spears in the hill, but the suckers have come out so thick that it makes a complete swamp of the field. O. L. SANBORN.

Concord, N. H., 1860.

REMARKS.—Opinion is divided as to this matter. We head in grape vines, squashes, tomatoes and trees; why not subtract a portion of the surplus plants among corn on the same principle? We should be glad of opinions on this point from observing and experimental persons.

##### IMPROVEMENT OF SHEEP FOR WOOL.

Having just commenced the business of keeping sheep, and being obliged to make up my flock of about five hundred from such as I can find for sale from half-blood Merino to common Canada, I find it necessary to improve in some way on the quality of the wool. Whether it would be best to cross them with a Merino or South Down, I am not able to say. Any suggestion in regard to this matter will be gratefully received. FREEMAN DOANE.

REMARKS.—Among our correspondents, we have those conversant with this matter, persons who understand the results of the crossings, and the demands of the market for wool, and we prefer their opinions rather than offer our own, made up from more limited experiences. The question asked is important, and we hope will be replied to early.

##### QUESTIONS ABOUT CIDER MILLS.

I would like to inquire through the columns of the *Farmer* of whom I can get information concerning cider-mills, and what kind are the best? Whether those that press the pomace immediately are equal to those where the cider can remain in the pomace for a length of time? What the arrangements are for pressing a large cheese, or making, without the use of straw, and where any are located of the common nut mill kind, run by water power, where the apples are put in above into a hopper, and the pomace falls in a bed beneath, if there are any such in this vicinity?

Wethersfield, Ct., 1860.

A SUBSCRIBER.

REMARKS.—We do not possess the knowledge wanted. Will some one who has it reply?

##### FOWL MEADOW GRASS.

Will you please inform me through your paper, whether the enclosed specimen of grass is the genuine Fowl Meadow? If not, what kind of grass is it?

Ossipee, N. H., 1860.

S. B. CARTER.

REMARKS.—We have no doubt but it is.

##### RUTA BAGAS—CABBAGES—ORCHARD.

Will you inform me through the *Farmer* what ruta bagas are worth per bushel in the fall, and how many pounds to the bushel? Will they and cabbages succeed well on the same ground, for two or more years, with a liberal coat of manure each year, say in an orchard which has been set with apple trees eleven years? S. S.

Seituate, Aug. 22, 1860.

REMARKS.—Ruta bagas vary in price as do potatoes and other vegetables. They are usually sold by the barrel, and bring, by the quantity, from sixty cents to one dollar per barrel in Boston, rarely, however, exceeding eighty cents. Any crop will succeed well after them if the land is highly manured, and the crop well tended. But in a well grown orchard of eleven years, a large crop of anything ought not to be expected short of a most liberal manuring.

##### A LIST OF FLOWERS FOR A NORTHERN CLIMATE.

Having seen a piece in the *Farmer* inquiring for a list of hardy biennials or perennials, I thought I would give the names of a few, viz.:

Peony, Oribus, Moss Pink, Golden Moss, Phlox, Chinese Larkspur, English Bluebell, Fleur de Lis, Monkshood, Featherfen, Spiderwort, Columbine, Indian Pink, Sweet Rocket, Foxglove, Lady of the Lake, Double Creeper, Crocus, Daffodil, Tulip, Queen of the Meadow, Magnolia, Garden Lily, Tiger Lily, Day Lily, White Lily, Climbing Honeysuckle, Iceland Moss, Myrtle, Napoleon Violet, Carnation Pink, eleven kinds of Roses, red and white, Snowdrop, Muskmalua, Lobelia Mallova, Honesty, Syringa, Dielytra Spectabilis, Persian Lilac, Canterbury Bell, Verbena, Jonquil, besides two hundred varieties of annuals and one hundred varieties of house plants. G. S. JACOBS.

Bolton, Mass., Aug., 1860.

MR. EDITOR:—A communication appeared in the *Boston Cultivator* of 1853, from which I copy the following, viz.:

##### PLEURO PNEUMONIA.

"This terrible scourge to animals it is said can be prevented by inoculation. Dr. Williams, a Belgian, made the discovery, and has put it to the test through a series of experiments from 1850 down to the present time (1853.) 108 cows and oxen thus treated have been completely protected from the contagion, while of 50 placed under the same circumstances 17 have taken the disease. The doctor takes the virus from the animal suffering under the disease and inserts it underneath the tail of the sound animal. This done, the matter gives evidence of its efficacy, and the animal is rendered unassailable by the disease. If this proves to be effectual, as it thus far promises to be, the doctor will have performed most valuable service in the world."

Glover, Aug. 13, 1860.

M. P.

##### HILL-SIDE BARN.

Constructing barns upon side-hills is a practice which is gaining favor among the best farmers in this country. Having once become acquainted with the advantages of such a location, we are sure no farmer would be willing to construct his barns in any other manner, if this were practicable. The testimony of the *Valley Farmer* on this subject is as follows: "The most convenient arrangement for a stock barn is upon a side-hill, where the hay and grain may be carted in upon the upper story, and pitched into the bays below. This arrangement saves a great amount of labor in hauling the feed for the stock. Another advantage of a side-hill barn is the manure may be deposited in a cellar below, where the whole of the liquid portion can be saved, and where the whole can undergo

a degree of fermentation before it is exposed to the washing rains and the weather outside. Upon the lower side, too, the cellar can be approached with the team and carts, and material added to the manure heap to absorb the urine and add to the general stock, or to render the whole easy of access for hauling away.

"A barn thus arranged not only saves a great amount of labor in hauling the hay, &c., in stacking and feeding, but the quality is greatly preserved by being housed at once after it is cured. Add to these advantages the still more important consideration—the comfort and thrift secured to the animals in consequence of the protection afforded from the storms of winter, and it will be found that no more profitable investment can be made connected with the farm than in the construction of a suitable barn."—*Homestead*.

*For the New England Farmer.*

#### THE IMPROVEMENT OF OLD PASTURES.

*A fine Field of Potatoes—Winter Wheat grown on old Pasture Land, with the use of Bone Dust.*

The improvement, within a reasonable cost, of the old run-out pastures of New England, is, to my mind, an interesting subject, and one of the most important branches of cultivation our farmers can undertake. Having had my attention directed to this subject for several years, I have been induced to try various methods for the renovation of such lands—the results of some of which have been given in former communications to the *Farmer*. Several interesting improvements of these lands are now in progress in my immediate neighborhood; and having to-day visited some of the fields either already made productive as pasture, or undergoing tillage, to bring them into that condition, it is now my purpose to give the details, in part, of what was observed. In a communication to the *Farmer*, in August or September of the year 1856, I described a tract of sixty or more acres of worn-out pasture-land, then recently purchased by our Vermont Asylum, the improvement of which had become a desirable object, and one in which, from some official connection with the Institution, I felt an active interest. This tract lies more or less rolling, but nowhere so steep, or uneven, as to be inconvenient, or objectionable for plowing. The improvements commenced upon it five years ago have been steadily progressing since, in pieces of ten to fifteen acres each, until some of them now have sufficient age to give them a certain character, from which some conclusions can safely be drawn. I shall first speak of three fields comprised within this tract.

The first piece looked at to-day, a field of about fifteen acres, is now covered with a promising crop of potatoes. The land was the oldest kind of bound-out pasture, covered with moss, and a feeble growth of inferior grasses, interspersed with sweet fern, shrub pine, and other bushes. The largest bushes were snaked out, root and branch, by taking a chain-hitch to them with the oxen; and others were cut down to the ground, and the little stumps turned under by the plow. In November last, the large breaking-up plow, drawn by four oxen, was started, and the land turned over about eight inches deep, in the nicest and most thorough style. In April last, it was

harrowed, furrowed out in rows one way, three feet and a half apart, and a shovel full of compost, made of muck and ashes, was dropped once in every three feet in the rows. The potatoes were dropped upon the compost, and the planting finished about the 20th of April. The muck used had lain in a large pile on dry land, for a year or more; and last fall it was composted with unleached ashes, using about three bushels of ashes to an ox-cart load, or one-third of a cord of muck. After lying in a heap a few weeks, the compost was shovelled over, and then carted upon the plowed land, and deposited in heaps of ten to twenty loads each, at convenient places for re-loading and dropping in the hills at planting time.

The potatoes were hoed twice, using the horse and cultivator between the rows at each hoeing. The tops have made a large and healthy growth; they stand about three feet high, and spread out laterally, so as to touch each other from row to row. The hills were examined to-day in various parts of the field, and the potatoes found to be large and sound, and promising a good yield. It is well known, that of late years, our best potatoes usually come from these old pasture lands. The varieties planted are the New Jersey Peach Blow, the Davis Seedling, and the Prince Albert, or St. Helena. The New Jersey Peach Blow, a strong growing, healthy and excellent variety, bears no resemblance to the kind commonly known as Peach Blow throughout New England.

This piece of land is to be plowed again, late this fall, and harrowed smooth and fine. On a light snow in April following, it is to be liberally seeded with red and white clover, herdsgrass and red top seeds, for pasture. No grain is to be sowed, as a crop of that kind would draw too much from the land, and injure it materially for pasturage. Besides, the grasses will catch better, and sooner afford a full bite of pasturage, if sown alone, than they would if shaded and encumbered with a grain crop. The old sward turned under, and rotted and subdued by cultivation, will afford nourishment to the new grasses, and thus secure a productive pasture for several years.

In November coming, some fifteen acres of adjoining land, similar to what this piece was, will be plowed up, and next season manured and planted with potatoes, and afterwards reseeded down to pasture. If, however, experience should indicate that an additional stimulus to the land would, on the whole, be advisable, then future fields will be dressed with about 500 pounds of bone dust per acre, at the time they are re-seeded to pasture.

The next field visited was a piece containing twelve acres, plowed up five years ago, this present month, and eight acres dressed with 400 pounds of bone dust per acre, two acres with 300 pounds of Peruvian guano to the acre, and two acres each with twenty bushels of unleached ashes, and the land immediately stocked down with grass for pasture, no grain crop being taken off. Having spoken fully of this field in a communication to the *Farmer* four years ago, and again two years ago this present month, I need not now go into particulars about it. Suffice it to say, that the land has afforded excellent pasturage, ever since it was thus dressed and re-seeded, and the cows appear to be very fond of the herbage, for they

keep it always cropped as short and smooth as a newly-shaven lawn—indeed, any one acre has been more valuable for what it has produced, than have any five acres of the adjoining land not yet in like manner taken in hand for improvement. The contrast between this piece and another of about equal size lying beside it, but not yet assisted by cultivation, is so strikingly favorable to the former, that I wish every reader of these remarks might have been with me to-day to observe it. It may be remarked in passing, that, while each of the three fertilizers used on this field gave good results, the bone dust appears to be of the most lasting benefit to the land.

Another field of about ten acres was looked at, which two years ago bore a remarkable crop of potatoes. It was manured in the hills with muck and ashes, and planted and cultivated in a manner similar to the fifteen acres first mentioned in this article. After harvesting the potatoes, the land was plowed again, and smoothly harrowed, and the following spring, or a year ago last April, it was stocked to grass for pasture, no grain being sown. The grass came up well, and the land is now covered with a very thick sward, composed of herdsgrass, red-top, and red and white clover, yielding the best of pasturage. The color of this field is of so deep a green, as to make it at once distinguishable at as great a distance as the eye can discriminate shades of color at all.

The next land visited was a field belonging to my friend, Richard Bradley, Esq. It was plowed up a year ago last November, and, in the following April, planted with potatoes, manuring them with a shovelful of compost in each hill. The compost was made of muck and ashes. Last April, the land was plowed again, 500 pounds of bone dust sown to the acre and harrowed in, then twelve quarts of herdsgrass, one bushel of red-top, twelve pounds of red, and four pounds of white clover seeds sown to the acre, and the field rolled. The grass has made a great growth, and a full swath might now be mowed.

Then came a smaller lot of Mr. Bradley's, completely run down by previous owners, with shallow plowing, and frequent crops of rye. The course of cropping had been to plow the land four or five inches deep, as often as it would bear five to eight or ten bushels of grain to the acre, sow it with winter rye, but omitting grass seeds, and after harvesting the rye, leaving the land to cover itself with such vegetation as it could, whenever it could. Last year at this time, the land was covered mostly with moss, with here and there a few bushes and feeble grasses. Last November, it was plowed a foot deep with the sod and subsoil plow, and an entirely new soil brought up to the surface, fine-grained and salvy. In April last, it was dressed with 500 pounds of bone dust per acre, together with 200 pounds of Peruvian guano, to give immediate action to the newly-turned-up soil, then harrowed fine, and sowed with one and a half bushel of orchard grass, a peck of herdsgrass, a half bushel of red-top, eight pounds of red, and four pounds of white clover seeds to the acre, and the surface made smooth with the roller. Here, too, is a superior catch of grass, giving the land a very different appearance from what it had a year ago, and showing that much can at once be done for the improvement of such land.

The last field examined was a tract of some six

acres, which Mr. Bradley is now plowing. This land has also been much reduced by shallow plowing, and frequent crops of rye. The sod and subsoil plow, drawn by four oxen, is turning the land ten inches deep, bringing up a different soil from the old surface one that has never before been exposed to the day. The plowing is done in capital style, no baulks or imperfections of furrow being anywhere allowed. About the first of September, a ton of bone dust to each acre is to be sown on the furrows, and also about one and a half bushel of winter wheat per acre, and the two harrowed in together. The sod and subsoil plow prepares a very level, mellow surface, and so cracked and opened withal, as to make a very superior seed-bed, in which the bone dust and seed wheat can be well covered by the harrow. Then one and a half bushel of orchard grass, a peck of herdsgrass and a bushel of red-top seed are to be sown to the acre, and the land rolled. In the spring, the land is also to receive red and white clover seeds—the design being to secure a thick sward of various kinds of grass. The land lying high, with a moderately rolling surface, it is thought that winter wheat may succeed well on it. The other two fields of old pasture, on which Mr. Bradley has applied 500 pounds of bone dust to the acre, have done so well, that he is inclined to try the experiment of a very heavy dressing of bone, and see if the land will return him a good crop of wheat, as well as an increased amount of pasturage over what could be realized from an ordinary dressing, and lasting for a longer period. The idea prompting to this generous usage is, that land will pay very much in proportion to what you invest in the improvement of its soil, or that where much is given to it in the shape of fertilizers and thorough cultivation, much may be expected from it in crops returned. The locality of this lot is withal so convenient to the barns, that it is quite desirable, on that account, to make it over into a productive pasture. Application has been made to Mr. John Johnston, of Geneva, New York, for the seed wheat. He is a very successful wheat-grower, and has several valuable varieties of seed, which he has been at considerable pains to procure and perfect. This is to me an interesting experiment, the results of which I expect to have something to say about hereafter in the *Farmer*.

It may be observed that the various fields spoken of in this communication, being free from uncommon roughness, or steep declivity of surface, are tolerably well situated for plowing, and are in the immediate vicinity of a village, where pasturage commands a high price. Under such circumstances, one can well afford to improve such lands in the ways above mentioned. Other circumstances may, of course, require variations from these modes of improving pasture land, or may, for the present, forbid attempts at improvement. Of that, each one must judge for himself; but as a general proposition, in the older settled districts of New England, investments for farming purposes made directly in the improvement of the soil itself, pay quite as well as the purchasing of more land, and adding it to the farm.

Brattleboro', Aug. 25, 1860. F. HOLBROOK.

A righteous man regardeth the life of his beast.



*For the New England Farmer.*

### STOOKING CORN.

#### HOW TO DO IT QUICKLY.

1. Have a good corn-cutter.  
2. Lay the corn, (2 or 4 hills in a place,) so that the tops of the second two rows will lie towards the tops of the first two, the tops of the fourth two, towards the tops of the third two, and so on. By throwing the left arm over, not under the hill, and bending it down slightly, one blow of the cutter will generally bring down the whole: and a large field may be levelled at short notice, far quicker than the stalks can be cut.

3. Take a small pole, about 3 inches through at the large end, 10 feet or so in length, light and dry; if a little curving, so much the better. With a 1 or 1½ inch auger bore two holes quite near the large end, so as to insert two legs, standing outward and forward, the rounding side of the pole being upward. Next, bore a horizontal hole about 2½ feet from the large end, into which a broken rake handle or other smooth stick may be run. Here we have a corn-horse all complete and ready for use. When the horizontal stick is in, we have four corners, around which we may set up the corn; 16 to 32 hills in a stook. Tie firmly with wilted suckers or small stalks, or, what is better, rye-straw bands. Bend down the tops and tie a small band over them, to shed rain.

Now, draw out the horizontal stick; take hold of the horse just behind the legs, draw it along a few feet and run the stick in again, ready for another stook.

The husking may be greatly facilitated by *breaking off the ears* before stripping. By pressing the thumb and fingers firmly against the butt of the ears, and bending over with the other hand, one may acquire the habit of breaking them off, so that many ears will have few, if any husks left. The stooks need not be untied. By a little ingenuity at contrivance, one may fix a low bench 3 feet wide, or so, throw a stook upon it, sit down, with feet under the bench, begin on one side to break off, and make clean work as he goes; or, he may kneel down to the stooks as they stand, or lie on the floor. If possible, let the corn be *fairly glazed* before cutting, but if a cold September morning, which threatens a hard frost at night, finds a field standing, unglazed, I should prefer cutting and stooking, (with the wilted side inward,) to letting the frost take it. In such case, it will harden off better in the stook than in the field. E.

*Framingham, Aug. 30, 1860.*

### HORSES.

We usually feed our horses too much; that is, the food is disproportioned to the labor they perform. We speak more particularly of our best horses—fancy animals, that stand in warm stables, blanketed, and taken out only occasionally for exhibition, rather than use. To keep a horse or other animal healthy, the carbon taken into the system in food must be proportioned to the oxygen taken in by respiration. Thus a man of sedentary habits, seated day after day in a warm room where there is little oxygen, can live on mush and milk, a little toast, or other light food, while the same man, in the Arctic regions, would

swallow whale blubber with impunity. The excess of oxygen in the Arctic atmosphere requires an excess of carbon, otherwise the oxygen would consume the lungs, and produce pulmonary disease. If the food (or carbon) exceeds its due proportion, or is disproportioned to the oxygen, it is unconsumed, and is stored away in the form of fat, which induces acute diseases and premature death. Now, a fancy horse, that has little exercise, standing in a warm stable, blanketed, with little circulation of air, and consequently little oxygen, gorging himself at a full crib from day to day, requires an excess of carbon; his muscles are overloaded with fat—he becomes stupid, and sluggish, and very liable to acute diseases. —*Ohio Farmer.*

### THE SEASON AND CROPS.

We have had, up to this time, Sept. 6th, no frosts to injure vegetation; in some low places there has been a little, but doing no harm. Frequent rains and warm weather have kept plants growing vigorously, so that their foliage is nearly as bright and luxuriant as in July. The "country never looked more attractive," is the remark of all who go out to see it. If the present hot days and warm nights continue a little longer, the corn crop must be safe from frost; as it now stands, it is so rank and juicy that a slight frost would injure it essentially. It appears to us that corn, generally, is not eared so heavily as in some seasons when we have what is called a good crop. It has a great growth of stalk, and many ears are set that cannot be carried through. Notwithstanding, the crop promises well; the present fine weather is probably increasing it at the rate of several thousand bushels every twenty-four hours in the State of Massachusetts.

**WHEAT.**—The attention called to this crop during the winters of 1858 and 1859, through the agency of Farmers' Clubs, has resulted in producing, we think, twice or three times the usual amount of wheat harvested in any one of many preceding years. The crop is also of excellent quality. We are informed that in some towns in Cheshire county, N. H., enough has been raised to supply the wants of the inhabitants. This increase of one of the staple articles of food may be fairly credited to the dissemination of books and newspapers devoted to agriculture, and to the discussions that have been held among the people in relation to farming matters.

The wheat crop in the Western States has been absolutely immense—indeed, it is inconceivable. Wisconsin will have *twenty-two* millions of bushels, after deducting losses in harvesting and cleaning up! California, we see it reported, will have *thirty-six* millions of bushels! The other Western States, with Virginia and Maryland, we have not heard from—but they must swell the amount to an astonishing aggregate.

**BARLEY.**—This crop has been excellent, though not cultivated very extensively in New England.

**OATS** have come in well, weighing, where grown on good soil, thirty-three pounds per bushel.

**RYE** has come in as about an average crop. It was badly winter-killed in many places, and the sharp spring drought kept it back, and reduced the crop considerably.

**BEANS** have had ample time to mature, and the crop will be a good one, where they were not planted on *sand hills*.

**HAY.**—The grass crop has been abundant, as a general thing. In some localities the drought was severe, and the crop almost cut off; but such districts are comparatively small, and there will be an abundance of hay in New England.

**POTATOES.**—Crop not all harvested yet. If they do not rot, what in the world are we to do with them all! They are now excellent, large, and of fine flavor.

**ROOTS.**—Mangolds and ruta bagas look well now, and have a month or more to grow.

**FRUIT.**—The apple crop will be abundant, and the fruit larger and fairer than it has been for many years. We hope our friends will not despair of getting a fair price for them, as when they are plenty it encourages shipping, and the price is usually as high as when the crop is small, and little or no shipping takes place. It is our opinion that all good apples, gathered and *put up well*, will bring a fair price.

**PEARS.**—A fine crop, but it is said they are not so high-flavored as usual.

While, then, the "varied year" has been comfortable for man and beast, it has also been full of wonderful attractions and beauty. Spring covered the earth with flowers of exquisite hue, and form, and fragrance. Midsummer found it clothed in the richest drapery of twig and foliage, and now autumn is crowned with the substantial harvests which her sister months have aided in bringing to perfection!

In the enjoyment of such blessings, we need not wait for a proclamation from the Governor to set apart a day for thanksgivings; they should hourly rise, as freely as God's blessings have risen through the spring, summer and autumn to perfect the plants from which we must seek our comfort and support.

**SUNLIGHT IN HOUSES.**—The following fact has been established by careful observation: That where sunlight penetrates all the rooms of a dwelling, the inmates are less liable to sickness than in a house where the apartments lose its health-invigorating influences. Basement rooms are the nurseries of indisposition. It is a gross mistake to compel human beings to reside partially underground. There is a defective condition of the air in such rooms, connected with dampness, besides the decomposing paint on the walls, and

the escape of noxious gases from pipes and drains. All school-rooms, especially, should be open to the sunlight, yet as a general rule, they are darkened like a parlor.

#### THE OLD GRIST MILL.

The grist mill stands beside the stream,  
With bending roof and leaning wall,  
So old that when the winds are wild  
The miller trembles lest it should fall;  
But moss and ivy never sere,  
Bedeck it o'er from year to year.

The dam is steep, and welked green;  
The gates are raised, the waters pour,  
And tread the old wheel's slippery steps,  
The lowest round forevermore;  
Methinks they have a sound of ire,  
Because they cannot climb it higher.

From morn till night, in autumn time,  
When heavy harvests load the plains,  
Up drives the farmer to the mill,  
And back anon with loaded wains;  
They bring a heap of golden grain,  
And take it home in meal again.

The mill inside is dim and dark,  
But peeping in the open door,  
You see the miller sitting round,  
And dusty bags along the floor;  
And by the shaft and down the spout,  
The yellow meal comes pouring out.

And all day long the winnowed chaff,  
Floats round it on the sultry breeze,  
And shineth like a settling swarm  
Of golden-winged and belted bees;  
Or sparks around a blacksmith's door,  
When bellows blow and forges roar.

I love my pleasant, quaint old mill!  
It minds me of my early prime;  
'Tis changed since then, but not so much  
As I am by decay and time;  
Its wrecks are mossed from year to year,  
But mine all dark and bare appear.

I stand by the stream of life:  
The mighty current sweeps along,  
Lifting the flood-gates of my heart,  
It turns the magic wheel of song,  
And grinds the ripening harvest brought,  
From out the golden field of thought.

R. H. STODDARD.

**THE OKRA PLANT.**—The consumption of this plant has materially increased within a few years. Mr. John Buckland, of Monmouth county, N. J., now raises seven acres per annum. When the pods are in a fresh state, they are used for soup, and give off a mucilage which enriches the soup materially, while the less soluble portions of the pod are softened together with the seeds, and produce an admirable potage. The gumbo of the South is made with this plant. The soup is always easy of digestion, and very nutritious. When the plant is suffered to ripen, the seeds are large and hard, and the amount produced is very great; these by being burned produce an imitation of coffee, scarcely inferior to the best Mocha, while the fibrous character of the pod strongly recommends it to paper-makers. It is perfectly evident to those who have examined it, that neither the aloe, the beech-wood, ordinary straw, or any of the substances now being made use of in place of cotton or linen for paper, sur-

pass it for this use; and we are surprised that it has not found its way into general consumption.  
—*Working Farmer.*

*For the New England Farmer.*

#### A VALUABLE TABLE.

I notice in the *Farmer* of July 26 an article under the above caption, which would be valuable if it was correct; but I find so much discrepancy in it that I am constrained to write.

When I was a boy I learned from Adams' old arithmetic that 268.8 cubic inches make a gallon dry measure, and on that supposition, the first box 24 by 16 by 28 inches, said to contain five bushels or one barrel, is correct if you call 40 gallons a barrel; but that is not the way we reckon barrels here. No matter—it is the boxes we are after now; all correct so far.

But the second box, said to contain half as much as the first, is of the same length and breadth and should be 14 inches deep instead of 12 inches.

The third box, 26 by 15.8 by 8 inches, said to contain 1 bushel, does contain over a bushel and a half.

The fourth box, 12 by 11.2 by 8 inches, said to contain 1 peck, does contain just half a bushel.

The fifth box, 8 by 8 by 4.2 inches, said to contain a gallon, is correct.

The sixth box, 4 by 8 by 4.8 inches, said to contain a half gallon, is 19.2 cubic inches too large.

The seventh box, 4 by 4 by 4.1, said to contain a quart, is 1.6 cubic inches too small.

Now I have my hand in, if you have room to spare, I should like to give a simple rule to ascertain the correctness of grain measures in the form commonly used for half-bushels, pecks, &c., that is, the round or circular form.

First, to find the area of any circle, multiply the square of its diameter by .7854, that is the decimal form of  $7854/10,000$ , and the product will be the answer. And now for the half bushel.

Measure the diameter carefully in inches and fractions of an inch, (a carpenter's square will answer all practical purposes, but the Gunter's scale is better, because it gives the fractions in decimal form) then multiply its square by .7854 as directed above, and you have the number of square inches checked right out on the half bushel bottom, by which divide the number of cubic inches in half a bushel, and the quotient will be the required depth in inches and fractions of an inch. Now measure perpendicularly, and if not correct, cut down the top or move the bottom outward or inward.

H. BRIGGS.

*Fairhaven, Vt., Aug., 1860.*

**LICHENS.**—And as the earth's first mercy, so they are its last gift to it. When all other service is vain, from plant and tree, the soft mosses and gray lichen take up their watch by the head-stone. The woods, the blossoms, the gift-bearing grasses have done their parts for a time, but these do service forever. Trees for the builder's yards, flowers for the bride's chamber, corn for the granary, moss for the grave. Yet as in one sense the humblest, in another they are the most hon-

ored of the earth-children. Unfading, as motionless, the worm frets them not, and the autumn wastes not. Strong in lowliness, they neither blanch in heat nor pine in frost. To them, slow-fingered, constant-hearted, is intrusted the weaving of the dark, eternal tapestries of the hills; to them, slow-penciled, iris-dyed, the tender framing of their endless imagery. Sharing the stillness of the unimpassioned rock, they share also its endurance; and while the winds of departed spring scatter the white hawthorn blossoms like drifted snow, and summer dims on the parched meadow the drooping of its cowslip gold,—far above among the mountains the silver lichen-spots rest, star-like, on the stone; and the gathering orange-stain upon the edge of yonder western peak, reflects the sunset of a thousand years.—*Ruskin.*

*For the New England Farmer.*

#### NATURAL SCIENCE—PROGRESS.

MR. EDITOR:—I am the hearty advocate of science among farmers, especially the natural sciences in the field of which the farmer's labors are continually going on. Thirty years ago, however, it would have been next to an impossibility for a young farmer to acquire much knowledge, even of the most common and simple of these sciences. They were, then, in comparative infancy, and were so mystified with jaw-breaking technicalities, that the first view made them repulsive, especially to the young.

But investigation has brought many new things to light, and being seen, their beauty, loveliness and general utility are developed. The minds of learned men are becoming more expansive, so that what they see and admire they deem fit objects of sight and admiration of others. The botanist and geologist are bringing those sciences, not only to a general focus, but are adapting them to the capacities of the very young. So, too, with writers on the subjects of animal creation; and by making us acquainted with the nature and habits of the birds and beasts that surround us, they teach us that these, too, are not the enemies, but the friends of man.

I rejoice, most heartily rejoice, in this day of progress in these things. It augurs a good time coming for the general intelligence among men, in the things that surround them, and in which their labors and successes are intimately connected.

It has been urged as an objection to the introduction of these sciences into families and common schools, that no books were prepared, adapted to the capacities of such learners. This vain plea is happily yielding to some stubborn facts in the case. Gray's "How Plants Grow" is admirably adapted to the juveniles, and at the same time instructive to the advanced capacity. Hitchcock's "Elementary Geology" is a work with which any one can become familiar who is disposed to do so, and what is equally good, Messrs. Harper, of New York, have just brought out a highly illustrated work, prepared expressly for the young, by Dr. Hooker, of New Haven, on the "Natural History of Animals," which we heartily commend to the consideration of loving parents, accomplished teachers and all good boys and girls, both little and big, who wish to make their minds big-

ger and their lives happier by a knowledge of the varied objects of animate creation.

Doctor Hooker is certainly fortunate in his happy talent of making the subjects of his thought so attractive and understandable as this book assures us.

He, in the first place, classifies animals, showing the difference existing between them as classes. Then he takes up the sub-classes, or species, and last, the varieties, with the native country and habits of each—together with their uses in the economy of nature. He uses some technicalities, of course, but only just enough for novelty to the young reader, and these are so beautifully anglicised, that they make the work interesting. Some 300 engravings illustrate the work, and a series of questions at the close of each chapter are well prepared to aid inexperienced teachers, who may introduce it. I have read the work with much pleasure and instruction, and fully commend it for schools or for families.

W. BARON.

Richmond, Aug., 1860.

For the New England Farmer.

#### BARREN GRAPE VINES.

DEAR SIR:—In your monthly journal, page 331, of this year, there is an article entitled, "*Cause of Barren Grape Vines.*" Two drawings are given, one of an imperfect, the other of a perfect flower. There is one point on which information would be acceptable, of which, however, nothing is said directly, in the above named communication. *Is it ascertained that the impression of these barren flowers is radical and perpetual, or it is a result of immaturity, which time will remove?*

The point is one of importance. The late Rufus Clark, of this town, informed me that a vine which was then bearing several bushels of bunches of grapes was accounted to be barren for twenty-five years. It sprang from a seed, and was only saved from the axe because it made a handsome shade while it occupied no valuable room.

Another gentleman has fruit on a vine this year which for four or five seasons past has contented itself with flowering, and was called barren.

The small bunch of flowers sent herewith is from a vine, (at the Parsonage, in Brattleboro', which I occupy,) a very rank grower, short jointed, and generally attractive to the eye of grape-growers, but barren for four years. Its age is six. The flowers sent are forced out from cutting back too closely. They are flowers of next year properly. The point on which light is sought is, Do those vines which are for a time barren, have then imperfect pistils? Or are they always perfect, only lacking in vigor?

Until this point is settled, what shall prevent vines, which might ultimately be far better than the Concord, being thrown away as hopelessly barren?

GEORGE P. TYLER.

Brattleboro', Vt., Aug. 27, 1860.

REMARKS.—Mr. E. A. BRACKETT, of Winchester, is familiar with this matter, and we hope will reply.

DEEP PLOWING.—Mr. D. H. Kellerman writes to the *Ohio Cultivator*, "last spring I purchased a Columbus Double Sod Plow, and plowed a piece

of sward ten inches deep, and it did the work to my satisfaction—it entirely buried the sod, and brought up about six inches of new black soil that never had been up. I anticipated a large yield of corn, but in that I was disappointed. The yield was not as large as on similar soil plowed in the ordinary way. I also plowed loose ground nine inches deep with no better result."

#### EXTRACTS AND REPLIES.

##### CRANBERRY CULTURE.

MR. EDITOR:—As a portion of your columns are devoted to questions and replies, I would like to make a few inquiries concerning the culture of cranberries. I have an old bog meadow which I am at work upon, and have taken the top off, below all the grass, roots, &c. What shall I do next? Is it necessary for me to put on a top-dressing of some sort before setting out the vines? Is clean, white sand better than anything else for the above purpose? If so, why? Will sand which we can get from old pine hills answer? It is hard getting white sand at a convenient distance from the meadow. How would loam do? Shall I plant the vines this fall, or had I better wait until the spring?

Hudson, N. H., 1860.

REMARKS.—If the meadow is composed mainly of decomposed vegetable matter, what is called muck, a top-dressing of sand, or even gravel, will be of essential service. The sand supplies *silex*, which means sand, to the plants, and probably benefits them as sand does grass, when applied to meadows—that is, supplies the stiffening principle, that hard surface covering which enables the plant to sustain an upright position. When sand underlies a meadow, we are inclined to think that it operates as a *strainer*, by passing off the surplus water, as well as supplying *silex*.

Set the plants this fall after growth has entirely ceased, or in April or May.

##### BUTTERNUT TREES.

In the last number of the *Farmer* I noticed the inquiry of "L. T. S.," respecting the bad effects of butternut trees on fruit trees. The remark was made to me some five or six years since that apple trees would not grow near a butternut tree, and I have ever since been looking for evidence in proof of the statement. I have found one case in point which looks very strongly in that direction. In an orchard set some fifty years since stands a large spreading butternut tree, and the apple trees for some reason give it a wide berth; as there are none standing within four or five rods in either direction, and those nearest are dwarfed, timid things, and appear as if they were enduring the frowns of the lofty butternut.

I am very much pleased that "L. T. S." has made the inquiry; for I am sure that the facts will be drawn out from the observations of your numerous readers.

I should have said above that the balance of the orchard stands in the order which it is usual to set trees.

Wilbraham, Aug. 30, 1860.

##### ABOUT MAKING PICKLES.

Can you, or some of your readers, inform me how pickles are prepared as they have them to sell in jars, or by the barrel?

Westboro', Sept., 1860.

##### CROPS IN NEW HAMPSHIRE.

The crops look well here—hay came in well, the drought not having much effect upon it.

West Windham, N. H.

REMARKS.—The description of a new cheese press accompanying the above was so imperfectly written, that we could not clearly make it out.

# AYRESHIRE STOCK.

I noticed lately in the *Salem Gazette* a carefully prepared statement of the milk products of two Ayrshire heifers recently imported by the Hon. E. S. Poor, of South Danvers. They were two years old in April, and then had their first calves. From the 20th of May to the 30th of June, on grass feed alone, they yielded four gallons of milk, each, daily, or nearly this. Their milk was said to be of very good quality, much like the milk of Jersey animals.

Perhaps the gentleman who lately asked for a comparison of the milking properties of these two classes of animals would like to examine these heifers of Mr. Poor. I believe they will be found worthy the attention of the curious in those matters, as I know his own Jerseys to be.

# NORTHERN AND SOUTHERN CLOVER SEED.

I would like to inquire if there is any way by which the seed of Northern clover can be distinguished from that of the dwarfish Southern article? For the last six or eight years I have paid an extra price for Northern seed, but have obtained it only once, the rest of it all proving to be the small Southern article, getting dead ripe before the herdsgrass blossomed.

*McIndoe's Falls, Vt., 1860.*

REMARKS.—We have inquired of a gentleman who buys and sells large quantities of clover seed, and he says it is very difficult to distinguish the Northern from the Southern seed.

# SAVING HUNGARIAN GRASS SEED.

In answer to "I.W.," of Clarendon, Vt., I would say, let it stand till the seed is mostly ripe, at which time the blades are usually about one-half turned yellow. When cut at this time and well cured, you will have a good crop of both hay and seed.

I think it best to thresh it right from the field. The seed and hay are very much inclined to heat, and should be closely looked to, till perfectly dry.

WILLIAM RICHARDS.

*Richmond, Mass., Sept. 4, 1860.*

# EXTRACTING COLORING MATTER FROM MAPLE SYRUP.

Can you, or your readers, give a process of extracting the coloring matter from maple syrup so that it will be clear like honey? If so, they will do the public a favor.

B. G. C.

*West Rutland, Vt., 1860.*

THE BEES AND THE MATHEMATICIANS.—Reaumur, the eminent French entomologist, proposed to M. Konig, one of the ablest mathematicians of his day, the following problem:

Amongst all possible forms of hexagonal cells having a pyramidal base composed of three similar and equal rhombs, to determine that which can be constructed with the least expenditure of material.

The mathematician undertook the solution of this very beautiful theorem, and at last demonstrated that, of all such cells, that would require the least material the angles of which should measure, respectively,  $106^{\circ} 26'$  and  $70^{\circ} 34'$ . M. Marraldi, another eminent naturalist, had in the meanwhile calculated, with as much accuracy as he was able, the real angles in the cell of the bee, and found them to be  $106^{\circ} 28'$  and  $70^{\circ} 32'$ , leaving only two minutes difference between the calculation and the result of the measurement; and more recent researches, conducted with the delicate instruments of modern science, have shown even that slight discrepancy to be erroneous, and proved that the angles pointed out by mathematical research and those adopted by the insect laborer are precisely identical.—*Jones's Natural History of Animals.*

*For the New England Farmer.*

# RUTLAND COUNTY FAIR.

MR. EDITOR:—Being called by business up to this State, it has been my good fortune to be present on the opening day of the Rutland County Agricultural Society, which is being holden at this thriving village, and I have thought I would give you my impressions in regard to it. The society have some forty acres enclosed by a substantial fence, which is admirably suited for the purposes for which it was designed, on which are built good, substantial buildings for the various uses of the society, together with that ever-present nuisance, a race-course.

Vermont has ever been famous for her good horses, and in the show to-day, Rutland county has done herself credit, the Black Hawk stock, I think, claiming its full share of attention. I would like to mention some very fine animals noticed, but stock and all articles are entered by number, and without the owner's name and residence attached, which makes it very inconvenient ascertaining the owners amid the bustle of a race course, where the Vermonters are especially proud of exhibiting their stock. The show of cattle was very good, mostly native blood, although some very good Durhams and Devons are on exhibition. My impression is, the Vermont farmers do not pay enough attention to their breed of cattle, and that the infusion of more Short Horn blood into their stock would be very much to their advantage.

The show of sheep was far below my expectations in point of numbers, yet there were some very fine animals on exhibition of the various breeds of French and Spanish Merinos, Leicester, and the various crosses between them. The Spanish largely predominated, and as far I could learn, are taking the preference among the majority of wool-growers. J. B. Proctor, of Centre Rutland, exhibited some very choice stock of Spanish Merino sheep, which to my mind were the best on the ground. One yearling buck in particular was the nearest perfect of any sheep I ever saw. He also exhibited ewes, ewe lambs and buck lambs, which are a credit to his skill as a breeder. Messrs. Farr & Rich also exhibited good sheep, and others whose names I did not learn. The show of dairy products and vegetables was good, but not superior. The show of fruit was very meagre, showing plainly that the Green Mountain boys pay more attention to their sheep than to their orchards. I leave for Addison County Fair tomorrow, and may give you a few notes in regard to it.

*Rutland, Vt., Sept. 6, 1860.*

REMARKS.—Thank you, sir—we shall be glad to get them.

ART OF THINKING.—To think clearly is among the first requirements of a public teacher. The faculty may be improved, like other faculties of mind or body.

One of the best modes of improving in the art of thinking is, to think over some subject before you read upon it, and then to observe after what manner it has occurred to the mind of some great master; you will then observe whether you have been too rash or too timid, in what you have ex-

ceeded, and by this process you will insensibly catch a great manner of viewing questions. It is right to study, not only to think, but from time to time to review what has passed; to dwell upon it, and see what trains of thought voluntarily present themselves to your mind. It is a most superior habit of some minds to refer all the particular truths which strike them to other truths more general; so that their knowledge is beautifully methodized, and the general truth, at any time, suggests the particular exemplifications, or any particular exemplification at once leads to the general truth. This kind of an understanding has an immense and decided superiority over those confused heads in which one fact is piled upon another, without the least attempt at classification and arrangement.—*Sidney Smith.*

*For the New England Farmer.*

#### FERTILITY OF MOUNTAINS.

Every man who has an eye to a good farm, will notice that from the land in the valley between two mountains, good crops are produced without manure. Ask the cause of this fertility, and the universal response will be, "the soil of the mountain is washed upon it, which causes it to reproduce largely." Look at yonder mountain! Is there any soil there to be washed down; if there was, why does it appear so sterile? My theory is different. In the warmer part of the season, the rocks are filled with water, and in the colder part of the season, the water, in the act of freezing, expands and tears the rocks asunder, so that on the commencement of a thaw, large pieces become detached and roll down into the valley below, when they break to pieces, are decomposed, and finally dissolved into a mould.

Look at the fruitful valleys of Switzerland, and no one will doubt, but the gradual decomposition of the mountains furnishes food for the plant in the valley. Is there a chance for us farmers to learn a lesson from nature? I say, yes; not many years will elapse, before some one will discover the art to hasten the decomposition of the rocks in our mountains, and we shall be led to look at the wisdom of God in causing them to be formed. On the Faulhorn, which is situated in the south of Europe, and rises 8000 feet above the level of the sea, on removing the snow, and after penetrating the ground some feet, is found a black mould of a rich quality. This valuable deposit was evidently derived from a decomposition of the strata of black lime-stone rock. The mountain torrents, when swelled, carry this deposit to the lowland, which accounts for its extraordinary fertility. In taking a birds-eye view of the various countries, it will be found that the sustenance furnished to the human race, by an all-bountiful Providence, has been wisely adjusted to meet their wants in every clime. Take the condition of the Esquimaux; his only food is the seal and walrus, which abound in fat. It is a substance exceedingly rich in hydrogen, and in the body eminently combustible, and weight for weight, when consumed in the blood, will furnish more heat than any other substance which can be taken for food.

S. P. M.

*Cape Elizabeth, Sept., 1860.*

*For the New England Farmer.*

#### WINTER AND SPRING WHEAT

MESSRS. EDITORS:—I noticed an article in the *Farmer* from the pen of H. Poor, Brooklyn, L. I., under the head of "Information about Winter Wheat," in which he says he never has despaired since the commencement of his own experience, that New England would in due time raise all the wheat necessary for her rural population, and more or less for her seaboard and inland cities.

I heartily concur with him in this, but when he says that winter wheat is a much safer crop than spring wheat, I say it may be in his vicinity, but I think that for most of New Hampshire and Vermont the spring wheat will generally average more to the acre by as much as twenty-five per cent. Having just harvested, threshed and marketed my spring wheat, I will give you a few statistics in relation to my crop this year. I sowed four bushels of Italian wheat on  $2\frac{1}{2}$  acres, the 12th day of April, from which I threshed, Aug. 22d,  $114\frac{1}{2}$  bushels, making 45 bushels to the acre! The ground was manured on the turf, broken up, and planted to corn the spring of 1859, and plowed again in October, after the corn was harvested.

I sowed another piece of  $4\frac{1}{2}$  acres the 18th of April, and sowed eight bushels seed on it; the ground was a side hill pasture, planted to corn last year; and plowed again last fall. This last piece has never been manured at all. Threshed Aug. 21st,  $102\frac{1}{2}$  bushels, averaging over 22 bushels to the acre. I sold my wheat for eight shillings per bushel. Were it not making my article too long, I would give you the exact cost of raising said wheat, as I keep a daily journal, and can show the exact cost and manner of preparing ground, &c.

R. H. SIMONDS.

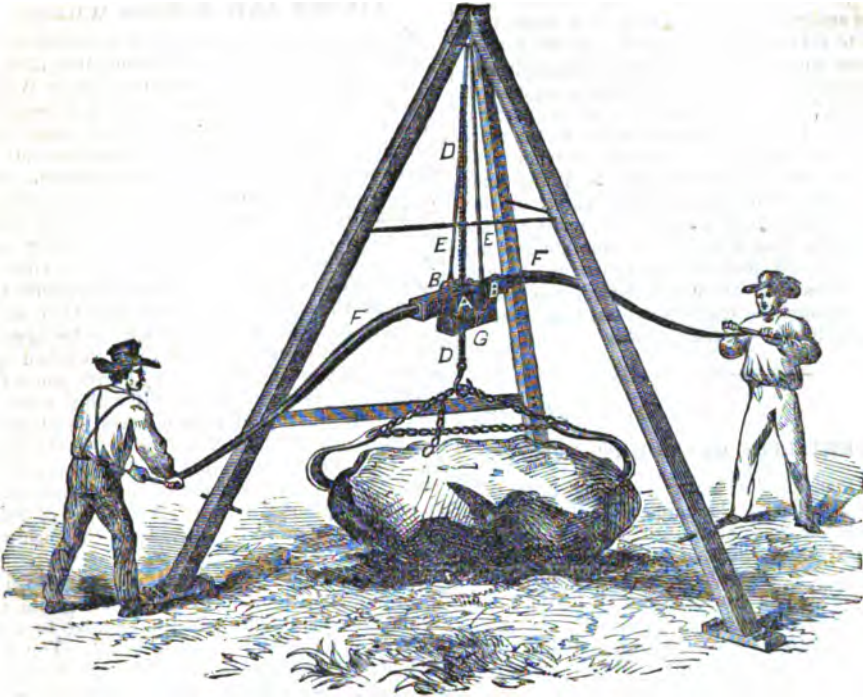
*Hartford, Vt., Aug., 1860.*

REMARKS.—Please give us the cost, and any other information about the culture of wheat. Do you soak, or prepare the seed in any way?

#### FACTS FOR POOR FARMERS.

"Those farmers who have most difficulty to make both ends meet, always plow most and keep most stock. Now these men take the true plan to keep themselves always poor, because their crops and stock are always poor and bring little." So writes John Johnston, in a letter to the Secretary of our State Society; and he thus illustrates his statement: "It is good profit to raise 300 bushels of wheat from ten acres, but when it takes thirty acres to raise that amount, it is raised at a loss. So it is with cattle and sheep—you will see the thinking farmer making four-year old steers worth from \$60 to \$80 each, and his neighbor's at the same age not worth over \$25 to \$40." His advice to the latter is, "if his land is exhausted, he should plow no more than he can thoroughly manure. Seed with clover and grass, and let it rest, and that field will not only pay well for tillage, but it will furnish manure (if rightly managed) to make another field of the same size, rich also." And then keep it rich, do not run it with grain until again exhausted, or "the latter end of that land will be worse than the first."—*Country Gentleman.*





BATES'S STUMP AND ROCK LIFTER.

We present our readers this week a cut and description of this machine, which, for simplicity of construction and economy of power, exceeds any machine for the purpose which has ever come under our notice. It is the invention of Mr. Caleb Bates, of Kingston, Mass.

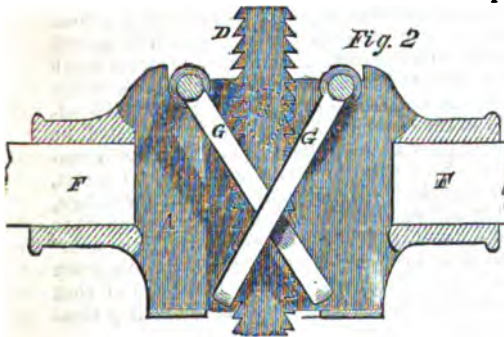
It consists of a rocking head A, supported by knife-edge trunions B B (like the bearings of a scale-beam,) resting in the eyes of the hangers E E. A double rack-bar, D D, passes through the centre of the rocking-head, with a hook at its lower end. The levers, F F, slip into square sockets in the rocking head to be thrown down when the machine is not in motion. Within the head is a pair of pawls, in the form of square links, crossing each other outside of the rack-bar. Clearly shown in Fig 2.

There are also guides to the rack-bar, not shown. The whole is suspended in a tripod of poles or joists, fourteen feet long. Two pieces of spruce joist, four by five inches square, with a strap of board bolted on them; and one stick four by six inches, having iron braces hooked into it from the others, as shown above the machine. A pin in each leg to carry it by, and strongly cleated pieces of plank to throw under the feet, and it is ready for use.

When the hook is fast to the object to be lifted, the operators work the levers up and down, and the pawls engaging alternately with the racks on opposite sides of the bar keep it in continuous motion. As the head rocks, the relative position of the working parts changes, producing a progressive power. For, as the operating pawl approaches its culminating points, its journals approach a plane which intersects the points of contact with the rack and bearing edge of the trunions; the lifting power increasing from the commencement to the termination of each vibration.

To reverse the action of the machine, a tongue of steel, G, is tipped up. Then with the same vibrations of the lever the weight will descend gently, with the same speed that it rises, until the hook is loose; then, grasping the rack-bar with one hand, with the other spread the pawls, and the bar drops to any point, or entirely out if desired.

The two men stand sixteen feet apart, and exert the force of two hundred men on the rock, stump, or other weight to be lifted.





There is not a pound of power lost, for there is no friction; and, as can be seen, it is a balance machine, the men having no levers to lift. Three men can carry it about with ease when the levers are slipped out. All parts of this machine can be thrown apart in a moment, and as quickly put together; there being no bolts about it.

#### HONEY DEW—WHAT IT IS.

In any European journal, it would create surprise if the nature of the so-called honey dew admitted of a doubt or dispute. Starch or grape sugar is an essential substance of plants, as much as carbon is, of which sugar is formed in conjunction with acids and salts. Flowers and fruits contain this sugar in an eminent degree, as also the juices of the maples, sugar canes, millets, grasses, beets, and thousands of other plants. Animal blood receives its sugar from plants, as it is a life ingredient of both kingdoms.

Liebig says: "A surplus of saccharine matter, more than leaf and bud consume, will be exuded upon the surface of the leaves and bark. Certain diseases of trees and plants, the so-called Honey Dew, are obviously produced by a disproportion in the quantity of furnished nitrogen free, and nitrogen containing nourishments. The exudations of sound, healthy plants of mannit, gum and sugar, cannot be attributed to any other cause."

"This case appears analogous to the digestion in the human organism; if, to every part of the body, there shall be restored what it loses by respiration and secretion, there must be offered to the organs of digestion a certain proportion of nitrogen free, and nitrogen containing substances, accompanied by certain mineral salts, which metamorphose them into blood. Is the quality of the offered nitrogen-free substances in surplus, they will then be either used to produce fat, or they go through the organism unaltered."

So far says Liebig—besides, it is well-known that saccharine matter is not of a volatile nature, that the air cannot contain it in solution—how then can it rain or dew down from the atmosphere even upon the dusty ground? The days of the Jews, when they imagined that manna, or mannit, fell from heaven for their especial use and merit are past; that same mannit or gum exudation of the mimosa and other plants is found and gathered yet in great quantities in the same and other similar climates of the globe, so the honey dew or the exudation of sugar. Bees do not produce one atom of honey, but are only the carriers of the starch sugar exuding from plants and their fruits. The so-called honey dew is in substance the same in the flower as it is on the leaf. Bees and myriads of other insects lick it up and exist on it. That rain washes it from the leaves is very plain, as water dissolves sugar. Give the bees plenty of honey-dewed foliage, and they will make plenty of the best honey without sipping a single flower.

The fibre called silk is in the mulberry leaf; the milk and cream of the cow, the oily parts of the grass, clover and herbs she eats, as is the wool on the sheep; or the honey the sugar of plants. The animal body only digests them, thereby complicating certain combinations of simple elements.—*Valley Farmer.*

*For the New England Farmer.*

#### FARM TOPICS.

Never set a post in the ground, or even stakes for a common fence, without first charring the end. In this practice there is great economy; there is generally brush enough at hand, and the boys like a bonfire.

Never break your colts to wearing blinkers, if you would have a less number of shying, contrary, skittish horses. The rustle of a leaf at his heels, or a piece of paper, in fact, all sounds from objects which he cannot see or comprehend, being blinded as to all, beside and behind, startle and alarm him. Blinkers or blinders are false ornaments, treacherous and dangerous, and cause many fatal accidents. Why not hoodwink the young steers in breaking them?

Never use anything but a chain and standard for tying cattle. The comfort of the tired oxen and cows carrying their young, should always be considered.

Never build your grain bins of any wood but hemlock. It is positively proof against the depredations of rats and mice, who never forget their best friends, the farmers.

Never get up your winter's wood to be chopped, split and thrown into a pile, and lie through the rains and drizzle of the spring months, and then house it at a loss of ten or fifteen per cent. Without loss of time have it under cover when ready for use.

Never keep your winter apples in a cellar where there is a constant opening and shutting of doors. Apples require an even temperature to keep sound. A dry side-hill cellar is best.

Never despair of getting a crop of winter wheat on light, plain, warm land, even if sown as late as the 15th or 20th of this month. See that the seed is well prepared in salt pickle and ashes, and put in two to three inches deep. Prepared in this way, it will come up the fourth or fifth day, if merely harrowed in. H. POOR.

*Brooklyn, L. I., 1860.*

#### TOMATO KETCHUP.

A correspondent recently inquired how to make tomato ketchup, and we insert the following for his benefit:

Take ripe tomatoes, and scald them just sufficient to allow you to take off the skins; then let them stand for a day, covered with salt; strain them thoroughly to remove the seeds; then to every two quarts, three ounces of cloves, two of black pepper, two nutmegs, and a very little Cayenne pepper, with a little salt; boil the liquor for an hour, and then let it cool and settle; add a pint of the best cider vinegar, after which bottle it, corking and sealing it tightly. Keep it always in a cool place.

*Another Way.*—Take a bushel of tomatoes, and boil them till soft; squeeze them through a fine wire sieve, and add half a gallon of vinegar, one pint and a half of salt, two ounces of cloves, quarter of a pound of allspice, two ounces of Cayenne pepper, five heads of garlic skinned and separated; mix together, and boil about three hours, or until reduced to about one-half; then bottle, without straining.

**FARM WORK FOR THE AUTUMN.**

In the successful management of a farm it is important to do the work at the *right time*, as well as in the right way. Indeed, this essential point is so sadly overlooked in many cases, that the profit that might otherwise be obtained is mainly lost. The seasons seem to have changed considerably, and if they have, our operations must change with them,—we must do the work when the elements and other circumstances will permit, even if we break through the old practices to which we have been accustomed. Within the last ten years, among good farmers, much of the work that was formerly done in the spring has been done in the fall, and in consequence of this the whole summer labor has been greatly facilitated.

For several years past the months of October and November have been sufficiently mild to allow almost any farm work to be done as well as it could have been in May or September; and, occasionally, as late as the middle of December, most of the out-door work of the farm might have been performed with comfort and profit. Let us suggest, then, some of the things that seem to call for attention in the fall.

**CUTTING BUSHES.**—A vast amount of labor is annually expended in New England in cutting bushes on pasture lands, where they are usually left to decay by gradual decomposition, in the way of the cattle, and unsightly objects to the eye of the neat farmer. These bushes are cut in August, under the probability that they will not start again so readily as if cut at any other time. But August is a busy season—much haying is left undone, in low grounds; weeds are to be looked after, and the stalks in the corn field are to be cut; the early potatoes, turnips, apples, and other things are to be marketed, and many matters are to be attended to which have been a little neglected during the busy days of haying. Many pastures have probably been cut over annually during two or three generations, and the only thing gained is in the bushes themselves,—they have taken deeper and deeper root every year, until they have nearly exterminated the grass, left the surface covered with innumerable stubs, and a thick coating of mosses in infinite variety.

The question we desire to ask is this: If the bushes are cut on a piece of pasture land twice or three times in a year, the stubble burned on the places where they stood the thickest, and the ashes spread upon the grass-producing spots, will not such a process exterminate them in three or four years? We are told that it will, and that next to plowing and thoroughly reclaiming, this is the best method.

The operation of **DITCHING** and **DRAINING** may usually be done with comfort and advantage between the middle of September and the middle of November. So may that of **RECLAIMING MEADOWS**. In this labor it is of the utmost importance that the first step shall be to draw off the water and leave the surface free for man and beast to work upon; and it should be taken off some ten or fifteen inches below the surface, so as not to interfere with the plow, if that implement is used. The cost of reclaiming a meadow is sometimes doubled by not pursuing this course,—and there is scarcely any greater discomfort than working in a black mud saturated with water, where men and teams are occasionally floundering, and strained to little purpose.

On rocky farms, the autumn affords an appropriate time to lift the large stones to the surface, and set them on small ones so that they will not freeze to the ground, in readiness for hauling away on the snow in the winter. In this course a treble advantage is derived; the cost of labor is not so much as in summer, and twice or three times as much weight can be removed in a given time on the snow as on the bare ground, if the stones are so large as to make it necessary to remove them on a drag.

**PLOWING** is also another important work appropriate to the fall. Sward land, intended for corn or potatoes, derives great benefit from fall plowing. It covers up a large amount of grass and roots that commence the process of decay, and become serviceable to the future crop, while the fine soil laid up receives valuable elements from the atmosphere, and the frosts of winter pulverize the particles and destroy some of the cut worms that are exposed. The teams, also, are generally in better condition to labor than they are in the spring, and the work, being done, is off the mind, and leaves it free to act on other matters.

**TOP DRESSING** is another item worthy of especial attention. Some persons do this on mowing fields immediately after the grass is cut; where this is done there is not only usually a second crop, but the grass retains its roots for many years, and yields annually abundant crops. But few persons, however, think they can afford the time at such a season for that work. Where there is a special objection to plowing land, this course is certainly a good one.

**MANURES.**—Every care should be taken before the ground closes up to provide loam or muck to sprinkle on the winter heaps of manure, so that none of their nutritive properties may be lost. This saving is not the only gain, for the whole barn and fodder will be sweeter, and the stock kept more healthy by preventing the escape of the ammonia and other gases from the manure heaps.

**THE GARDEN.**—This should be plowed or spaded and manured in the fall, and the mind generally made up as to where the early corn and cucumbers, the peas and asparagus, the beans, lettuce, early potatoes and squashes shall be planted, so that in the spring there is no engineering to be done; nothing but this: "Here are the seeds for this square and that;" and they are quickly deposited in the rich, mellow soil, made light and seasoned by the fermentative power of the crude manures dug or plowed under in the fall.

We have suggested only a few things—there are many more that these few may suggest to the mind of the systematic farmer. It is pleasant and encouraging to go forth in the spring and find so much of the new year's work commenced; it is inspiring, and gives one a start that he feels all through the season. So let us take time by the forelock, and do all things at the *right* moment, and do them well.

*For the New England Farmer.*

#### SLATES AND LIGHTNING.

In your issue of August 25, 1860, I find "Practical Slater's" theory so much at variance with my *experience*, I am tempted to give a little of that.

Six years ago I was building an addition to the house I then occupied, and had covered the new part with slate; soon after it was struck with lightning, near the end next the old part of the house, breaking only two or three slates, and passing down the corner part, shivering to atoms an umbrella which I, but a moment before, put there, and prostrating my wife and myself. Had it not been for the timely assistance rendered by my hired man, (and the blessing of Providence,) who supposed life to be extinct with me, I probably would not have been here to answer now.

Soon after the above occurrence, we had two lightning rods put up, and I think that they were struck with lightning in the month of June last. All of which, and a vast amount of shocks by electricity, have happened within ten or twelve miles of very extensive slate quarries in this country, that have been constantly worked for a number of years previous to the above occurrences.

E. G. CHATTERTON

*West Rutland, Vt., Aug. 31, 1860.*

**ACONITE A REMEDY FOR MASSACHUSETTS CATTLE DISEASE.**—Hon. Adam Ferguson, of C. W., writes Col. B. P. Johnson, of New York: "A friend of mine in Scotland, an *amateur veterinarian*, told me he attended Prof. Dick, in his rounds, when the disease, some years ago, was raging in Scotland, especially in large dairy establishments. My friend, D. Henderson, is Professor of Pathology in the University of Edinburgh, and is in high medical practice. He assured me that Aconite was used as a specific, if given in time, *before* the lungs were seriously affected, and had saved scores of valuable cows."

*For the New England Farmer.*

#### IS THERE PROFIT IN FARMING?

Many thanks, Mr. Editor, to your Chelmsford correspondent, T. J. Pinkham, for his article, some months ago, on the profits of farming. I think it has been productive of much good in the many able and conclusive answers it has elicited. And yet there is one phase of the question which has hardly been touched upon by those who have undertaken to answer that article.

What is *profit* in farming or any other occupation? Is it truly estimated by the number of dollars above expenses which it brings into the pocket? To be sure, it was only in regard to *money* profit that Mr. P. argued the case, and those who have attacked his arguments have met him mainly on that issue; but as, in reading the *Farmer*, since that article appeared, my attention has so frequently been called to the question, "is there profit in farming," your readers have naturally been led to look at the question in its full and literal meaning.

I suppose that no one will object to the position that the greatest good is the greatest profit, and that one occupation or calling is more profitable than another, inasmuch as it is productive, in all its bearings, of the greatest amount of happiness. I will not assume that every one may find in agriculture the greatest profit; far from it; all cannot be farmers; and fortunately, in the divine arrangement, the tastes and capacities of men are widely varied; but let any one who has been familiar with the residents of almost any of our farming towns, for the last twenty years, look up the history and circumstances of those who have wandered from their farms for other occupations, or encouraged their sons to do so, and I think the result will show that while a few may have bettered their condition, the great majority have *flatted out*, and are now mere *dependants*, instead of substantial yeomen, as formerly.

A man with a snug farm, though saddled, perhaps, with a debt of a few hundred dollars, yet in the prime of life, in good health, with a family of boys beginning to assist him, and promising substantial aid in the future labors of the farm, it would seem, might congratulate himself on the prospect of enjoying, in a large measure, the real blessings of life. His own sons can now gradually take the place of hired help, and he can plan and execute improvements on the farm.

With room enough to keep all the family profitably employed, he can keep them with him, and they can have a home and common school education, chiefly under the eye and influence of their parents. Is there not *profit* here which dollars and cents cannot estimate? Let parents, thus happily situated, as I have described, experience, for one short month, the trials, anxiety and grief of some, whose business, though yielding them a large return of moneyed profits, yet brings their children into temptations which open up to them the flood-gates of ruin, and they will realize more fully the profits of a country farm.

It is sad to notice the change which has come over families. And the process by which it has been wrought is plain. The boys had no relish for farm work. One must be a merchant's clerk; others find employment in shops or factories; and one, loving his book more than work, must be

supported at college. The parents, now in the decline of life, must buffet its stern realities alone. With their own hands, or the aid of hired help, they are trying to secure the annual crops. All plans for "improvement" were long since given up. They have no aid from their children, and little of their society. The clerk, perfumed with musk, occasionally comes home to rusticate; the shop-boys, in their liberal patronage of the livery-stable, may sometime, especially when the fruit and other farm luxuries are in perfection, ride over and see "the old folks," and the student also comes home at vacation for a fresh supply of money, and to tax anew the physical energies of his mother in replenishing his wardrobe.

The farm is now for sale, and these parents will soon, no doubt, break the life-long ties of farm and neighborhood, and spend the evening of their days elsewhere. Such, Mr. Editor, is a process which is largely going on in many of our country towns; can nothing be done to stay it?

Royalston, Sept. 6, 1860. J. WOOD.

REMARKS.—We hope so. Your article is a good pioneer.

*For the New England Farmer.*

#### "MARRYING A FARMER."

I see that your "Farmer's Daughter" has been answered by some abler pen than mine. When I read the article from the New Hampshire young lady, I felt a strong desire to answer her through your columns, but this has been so well done, that I only wish the privilege of adding a few words.

There is too much shrinking from what is called hard work—the household duties of a farmhouse. I doubt whether such labor kills as many as the late hours, waltzing, high living, and other excesses of fashionable life.

It is not labor, the exercise of the muscles, that makes us grow old so fast; it is the constant worry and fretting at the real or fancied disagreeables of our daily life. We desire to dress beyond our means, to have a piano, and rich parlor furniture, or a carriage, forgetting that the real happiness of life does not lie in these things. No, nor in getting a rich husband either. I say, my dear "Mountain Sister," don't trouble your head about this last matter at all. Do your duty as a farmer's daughter, take some of the care and labor from that toil-worn mother, who has perhaps had more than her share. It is no strange thing now-a-days for farmers' daughters to sit in the parlor with needle work, wishing they had a piano or richer clothing, or that some wealthy gentleman would happen along and bear them off to a city life; while their mothers are making cheese or butter in the kitchen. Now, a far better way would be, to enter at once with energy and will into all the minutiae of farmer-life—interest yourself in your father's labors out of doors; in the crops, in the cattle, in fruit-growing. You may suggest improvements, but at any rate, you will make home pleasanter to those who toil for you.

If you really desire an education, you can obtain it. There are more ways than one. Remember Miss Lyon. If you want more money, you can have it. If you really don't know how to obtain it, I will some day give you a bit of personal experience.

If you want a husband who will love, cherish and esteem you till death, you can have one. "How?" do you say? Ay! that's a secret, which I will reveal, if you'll promise never again to refuse a farmer, because you will have to work so hard.

A. E. P.

#### STATE FARM AT TEWKSBURY.

On Tuesday, Sept. 4, we made a visit to the State Alms-House at Tewksbury, to look at it as a whole, but more particularly to look at the farm, having heard that some striking improvements had been made upon it. Before visiting at the barns, stock and fields, we passed through nearly all the rooms of the buildings, and found them in admirable condition. They were clean, sweet, and orderly. The bedding, everywhere, would be inviting to a tired person of any class. It was white and whole, and the floors, furniture, and walls of the rooms, were all bright, notwithstanding the average number of the family is *seven hundred persons!* In the kitchen, the cooking is chiefly done in four large kettles, heated by steam. Two of these contained soup in preparation for dinner, and another potatoes. In one corner of the kitchen was a grist-mill at work, capable, we should think, of grinding ten or fifteen bushels of corn per hour, and propelled by a small engine in the boiler house. Adjoining the kitchen is the bakery, where *five* barrels of flour are made into dough for one baking. A batch had just been drawn from the oven as we entered the room; it was light, sweet, and of a fine color. We visited, leisurely, every part of the establishment, and found each department testifying to the neatness and systematic management of the Institution.

The Superintendent, Capt. T. J. MARSH, informed us, that when he entered upon his duties there, only two cows were kept upon the farm, which consists of one hundred and thirty acres; that the bills annually paid for milk amounted to about \$3,500, and that the supposition of the managers of the House had been, that milk could be purchased cheaper than it could be made on the farm. This, however, was not his opinion, and the consent of the Inspectors being obtained, he has purchased cows from time to time, until he has *thirty-two* in the stanchions, and as a whole, it is as fine a herd as we have seen during the year. They are not fancy cows, and of no particular breed, but have been selected with regard to age, size, and good milking qualities.

About one-half the farm is made up of light plain land, such as often receives the name of "pine barrens," and the other half is of granite formation, a little elevated, springy, rocky, and covered with bushes, nearly as repulsive as any lands we have in the State. The sandy lands had not been improved so as to produce permanent

crops of grass, and the higher lands had not been reclaimed at all,—so that very little fodder could be cut to sustain the stock. Eighty tons of hay were, therefore, purchased last year, at a cost of \$16 per ton, amounting to \$1280; and yet, under this disadvantage, the Superintendent finds he can make the milk cheaper than it had been purchased. He is also able to use a larger quantity, and of better quality of milk than when it was brought to them from considerable distances. Beside the *thirty-two* cows, we found six pairs of noble oxen that are constantly kept at work in pulling stumps, stones, carting manure and the materials for making it, plowing and getting the land into grass, and doing the ordinary team work, such as hauling coal, &c.

By sowing oats, millet, fodder corn, &c., and by careful and systematic attention in feeding, the Superintendent is enabled to furnish food for this large stock through the summer, and keep them all in excellent condition. The oxen and cows were in good flesh, and some of them in each class were good beef, although giving milk, or daily in the yoke. Much of the sandy land is covered with roots for winter feed, or will produce its two crops this season, while the teams, with all the other force he can spare, are subduing the hard land, so that in less than five years, with the manure from this large stock and the well-directed labor in preparing the land for it, hay enough will be cut to supply the place of all that he is now purchasing! Beside the neat stock on the farm, there are three horses kept and some *three hundred swine*. The manure from this large stock, and the sewerage from the buildings, properly managed, may soon bring the whole farm into the condition of a highly cultivated garden.

The feed of the cattle is varied both in summer and winter, by giving them various green crops in the summer, with a little grain, and in winter by cutting the hay and mixing with grain or roots and feeding occasionally upon long hay. About *two thousand bushels* of potatoes will be raised this year, and some *three thousand bushels* of carrots and other roots.

Mr. Marsh had just finished a new barn, 40 by 60 feet, with 20 foot posts, with a cellar under the whole  $9\frac{1}{2}$  feet in the clear, with a cement bottom. Every part of this barn was built, we understood him to say, by the labor of the Institution, with the exception of the slating. This barn is intended for *storing purposes*, and not for stock, and for such use is a model building.

The farm greatly needs *pasture lands*, so that a portion of those now devoted to green fodder may be set in permanent mowing fields, and as there is such land within a hundred rods of the buildings, and adjoining the farm, we hope the State

will supply the deficiency. A farm with only 130 acres is not sufficient for a family numbering 700 persons, many of them able and willing laborers.

What struck us pleasantly on the premises were the quietness and order that everywhere prevailed; every person knew his duty, and certainly seemed to be interested in its faithful discharge. The Inspectors are, Messrs. GEORGE FOSTER, of Andover, DANA HOLDEN, of Billerica, STEPHEN MANSON, of Lowell, and THOMAS J. MARSH, Superintendent.

We congratulate His Excellency on these judicious and happy appointments, and the State in the possession of such skilful and faithful officers.

### EXTRACTS AND REPLIES.

#### BARRELS AND BUSHEL.

In examining your valuable table in the monthly *Farmer*, page 400, I find some very important mistakes, or else I make some in casting.

$24 \times 16 \times 28 = 10,752$  the dimensions for a barrel of 5 bushels, (your figures say) but I suppose you mean 3.  $10,752 \div 3 = 3584$ , the number of inches in a bushel.

$24 \times 16 \times 12 = 4608$ , number of inches in a half barrel.

$4608 \div 2 = 2304$  inches in a bushel.

$26 \times 15.8 \times 8 = 3286$  inches in a bushel.

$12 \times 11.2 \times 8 = 1075 \times 4 = 4300$  inches in a bushel, so that you see that it makes quite a difference in the number of inches in a bushel. The figures stand thus:

Dimensions for a barrel.....	3584	to the bushel.
Dimensions for one-half a barrel.....	3072	" "
Dimensions for a bushel.....	3296	" "
Dimensions for a peck.....	4300	" "

Now the question is, which of the dimensions is right, if any? You do not tell us whether your boxes will hold so much grain or apples and potatoes. I suppose you must mean heaped measure.

METHUEN.

N. B. Will not a box  $18\frac{1}{4}$  inches square and 8 inches deep contain a bushel?

REMARKS.—We found the table referred to in one of our exchanges, and supposing it correct did not test its figures, as we otherwise should. The English bushel contains 2150.42 cubic inches,—this is the bushel referred to in the table, and our correspondent will see that the figures for the barrel are right, allowing it to hold 5 bushels. A tierce would be the proper name for it. The box for the half-barrel, (or tierce,) should have been 14 inches deep instead of 12. The box you suppose, will contain 2738 cubic inches.

#### THE WHIP-POOR-WILL.

MR. EDITOR:—In your terse "Talk about September," in speaking of the changes of the season and the ceasing songs of Nature's minstrels, you say, "The whip-poor-will is not heard much after July comes in." Do they usually cease their nightly carol on or about July in Massachusetts? Here in Maine, this year being the first time observed, in  $44^{\circ} 90'$ , their song was kept up till September as merrily as ever, with short interruptions in the last part of August. Where they go to, and when they leave different places, would be information thankfully received from you and your correspondents by many lovers of birds. Let us all be more observing of birds and communicate what we learn.

O. W. TRUE.

Elm Tree Farm, Me.

REMARKS.—NUTTALL, in his admirable "Manual of the Ornithology of the United States," in speaking of the Whip-poor-will, says: "After the period of incubation, or about the middle of June, the vociferations of the male cease, or are but rarely given. Towards the

close of summer, previously to their departure, they are again occasionally heard, but their note is now languid and seldom uttered; and early in September they leave us for the more genial climate of tropical America, being there found giving their usual lively cry in the wilds of Cayenne and Demerara."

#### CROPS IN MINNESOTA.

As you are interested in agricultural matters in all portions of our wide country, I will say a word in reference to the farming interest in this region.

The farmers are now in the midst of their wheat harvest, and all unite in saying that the present ingathering is by far the most abundant they have ever had in this region. Indeed, it would be a very difficult matter to find any land which seems so well fitted by nature to yield an abundant increase of small grains as this. A soil of limestone formation, just as rich as nature could make it, seemingly, cannot but reward the farmer with a hundred fold increase for his labor bestowed upon it. It is a wonderful soil for producing potatoes as well as wheat. One man assures me that last year he raised no less than sixty bushels of potatoes from one-half bushel of seed. Did you ever hear of such a yield before? His mode of planting was to cut the seed potatoes into small pieces each containing one eye only, and planting each piece by itself. The weather here is unprecedentedly cold, now; I hear of frost in low places. The corn has not grown any the last week or two, on account of the cold weather.

EDWIN TEELE.

#### FROST IN THE FULL OF THE MOON.

There was a frost in this vicinity on the nights of the 2d, 3d and 4th inst., sufficient to kill the corn and potatoes in many places. Your Springfield correspondent, (please insert the initials of Dr. Allen's name, I forget them,) in his interesting letters to the *Farmer* last winter, staggered my previous opinion in regard to the frosts in the full of the moon. I must watch him and the frosts hereafter, a little more closely.

To set the matter right, is the frost as frequent on any three nights of the month of September, as on the same number of nights at the full of the moon? I find it hard as yet to decide in the affirmative.

Bethel, Me. Sept. 6, 1860. N. T. TRUE.

REMARKS.—The initials desired are "J. A. A."

#### THE WHEAT CROP IN MAINE.

This crop has not been as good as it is this year for ten to fifteen years, and many old settlers say it has not for twenty; but as to this I cannot say. There has been scarcely a failure of a remunerative crop where it was sown in March and April, and in fact, I have not seen or heard of a single piece sown thus early but filled well and had no midge to injure.

In Franklin and Somerset counties, I have seen a few late-sown fields that were injured by rust and the weevil or midge, considerably. It was easy to stand by the edge of different pieces and select heads containing fifty kernels of perfect grain, each, where it was sown early. Farmers are making preparations to try its cultivation much more extensively. O. W. T.

#### THE CROPS—HAWTHORN HEDGES.

There has not been in this town, for many years past at this time of the year, the appearance of a better incoming crop of farm produce than there is now. And although the hay on both the uplands and intervalles has not been quite so much in bulk as usual, it will, I think, be more than made up in the extra yield of corn, oats and barley.

Have any of the readers of the *Farmer* ever tried to raise a hedge from the planted berries of the common Hawthorn (*crataegus*)? If they have, with what success?

JOHN C. GITCHELL.

Boscawen, N. H., Sept. 7, 1860.

#### ADVANTAGES OF A MOWING MACHINE.

Some of your readers may be pleased to hear a brother farmer's experience of a mowing machine. The

season previous to my buying a mower I paid nearly one hundred dollars for hired help to get my hay. The season after I bought a mower I paid fifty cents for help above what I mowed for my neighbors. The second season I paid a man thirty-six dollars for work in haying, did my own mowing, and mowed for others, and had forty dollars left! This season grass was very light, and I had but little to cut, but I get thirty dollars clear. Cost of mower \$117.

AN OLD SUBSCRIBER.

Addison County, Vt., Sept., 1860.

#### FROSTS.

There was in Franklin county, Me., a frost July 28, killing buckwheat, cucumbers, &c., in many places, and in some very frosty places, corn and potatoes. Also, September 2d and 4th, frosts quite general on low lands and along rivers, doing some injury. Occasionally a piece of corn was spoiled and more India and buckwheat than in July; yet in spite of the frosts crops will be more than an average in Northern Maine.

O. W. TRUE.

For the *New England Farmer*.

#### THE THUNDER SHOWER.

MR. EDITOR:—On the morning of the 8th of August the thermometer stood at 70° at sunrise, and 98° at 12 M. The forenoon was so sultry and so hot that people who labored suffered severely. A little past the middle of the day a few clouds of singular appearance suddenly collected a little at the southwest of my dwelling-house, which were soon succeeded by low murmuring thunder and the appearance of rain. This little beginning of a shower advanced so rapidly that those people who were a little way from home were thoroughly saturated with rain unexpectedly. About this time portentous clouds were to be seen collecting in the northern atmosphere, and advancing rapidly to form a junction with the forces from the southwest. While advancing to meet each other the battle in the elements commenced in earnest, the lighter artillery commenced the action by sudden electric discharges which seemed to shatter and rend the heavens, and on the two bodies meeting, (who can abide His wrath?) the great magazines of electricity exploded in seeming vengeance at every object below. I sat and saw the streaming fire issuing from the clouds and coming down in every fantastic shape, some zigzag, some in such large bolts as to split into branches, but all tending directly to the earth, to the horror of all people, and more especially of those who had barns well stowed with new hay. The shower continued till near night, with a frightful roaring and violent discharges of heaven's artillery, till every one seemed to be impressed that the damage must have been very great in the destruction of life and property as far as the shower extended.

Reports have been afloat that barns were struck in the towns of Andover, Middleton, Reading, Danvers, and other places. It would be very gratifying to many others as well as myself, to be informed in the reports of these barn-burnings how many had lightning conductors on them, or whether they were all destitute of lightning rods. There seems to be a prevailing interest in the public mind in regard to the utility of lightning rods. The best evidence is a statement of facts, and the best way to come at facts, is to know whether those buildings which were furnished with rods were entirely exempt from disaster, or

whether the lightning made no discrimination between protected and unprotected buildings. Some people are of the opinion that the attractive powers of the rods are very limited and feeble, while others have great confidence in their power; if we could obtain the statistics of this and past years, from every person in the State who has had a building struck by lightning, it would furnish us with knowledge we much desire.

SILAS BROWN.

*North Wilmington, Aug. 13, 1860.*

**THE AUGUST PIONEER GRAPE.**—A sample of this grape has been handed us by Mr. A. D. MERRILL, of Lynn. He calls it a native, and it is a good grape for a wild one. However, it costs no more to cultivate a fine quality grape than a poor one,—so that whenever we plant a grape vine it should be the best we can command, if it is one that will bear the climate and be productive.

**NEW SEEDLING PEARS.**—We have before us a few seedling pears, from the garden of Mr. JACOB SHAW, 2d, of Abington. They have the color of the Bartlett, and something of its shape, though not so long in the neck, or upper part. To our taste it is not equal to the Bartlett—a friend standing by and eating one says it is better.

## LADIES' DEPARTMENT.

### FRUITS IN WINTER.

By a little forethought and trouble, the fruits which just now are so abundant, may be kept fresh until midwinter, or spring even. The frugal housewife has long been accustomed to "do up" a few strawberries, make a little raspberry or blackberry jam, and occasionally to preserve a jar of peaches, pears or quinces; but she has always been very careful to use as many pounds of white sugar as there were pounds of fruit, and even then they have had to be examined frequently, and sometimes "scalded" to prevent "spoiling." Again when "done up," the result has been a very good sweetmeat, but with little of the natural flavor of the fruit remaining. Experience and frequent trials have discovered better modes of preservation, and now the different kinds of berries, "tree fruits," with tomatoes, and other garden vegetables—are stowed away in cans and bottles, with the full assurance that they will open any time in the course of two years, with much of their original freshness and flavor. A few practical suggestions to those inexperienced in the "preserving art" are necessary.

First, boil your fruit in a porcelain kettle, with a small quantity of water. Add white sugar, usually one-fourth as much as there is fruit. The sugar might be omitted entirely, were it not that it would be necessary to add it whenever the sweetmeats are taken out for use. Some prefer making a strong syrup, by using one pound of sugar to a pint of water, and pouring this into the bottles after the fruit has been placed in them, to fill up the interstices. Having boiled your fruit for a

few moments, fill your cans quickly, seeing that every particle of air is expelled. Have your corks ready, softened in warm water, and also a mixture composed of one pound common resin to one ounce tallow or lard well melted. Having pressed in the corks, coat them over with the cement. To guard securely against air, it is a good plan to invert the bottles in patty-pans, or other small vessels filled with melted cement. This will render the cans or bottles absolutely air-tight. After cooling; set away in a dark room if possible, and no further trouble need be apprehended. Pears and quinces should be "cooked" until soft.

### FINDING FAULT WITH YOUR CHILDREN.

It is at times necessary to censure and punish, but very much may be done by encouraging children when they do well. Be, therefore, more careful to express your approbation of good conduct, than your disapprobation of bad. Nothing can more discourage a child, than a spirit of incessant fault-finding on the part of the parent. And hardly any thing can exert a more injurious influence upon the disposition both of the parent and child. There are two great motives influencing human actions—hope and fear. Both of these are, at times, necessary. But who would not prefer to have her child influenced to good conduct, by a desire of pleasing, rather than by the fear of offending? If a mother never expresses her gratification when her children do well, and is always censuring them when she sees anything amiss, they are discouraged and unhappy. Their dispositions become hardened and soured by ceaseless fretting; and at last, finding that whether they do well or ill, they are equally found fault with, they relinquish all efforts to please, and become heedless of reproaches.

**A GOOD WOMAN NEVER GROWS OLD.**—Years may pass over her head, but if benevolence and virtue dwell in her heart, she is cheerful as when the spring of life opened to her view. When we look at a good woman, we never think of her age; she looks charming as when the rose of youth first bloomed on her cheek. That rose has not faded yet—it will never fade. In her neighborhood, she is the friend and benefactor. Who does not respect and love the woman who has passed her days in acts of kindness and mercy? We repeat, such a woman can never grow old. She will always be fresh and buoyant in spirits, and active in humble deeds of mercy and benevolence.

**MARY.**—Who does not love the plain, yet beautiful name, Mary? It is from the Hebrew, and means a "teardrop." What sweet and joyous hours of other days—what pleasing associations the very name calls up in every heart? Who that does not love the name, and has not had every ligament of his heart moved to melody at its mention? If there be anything gentle, valued, and womanly, what Mary possesses it not? Was it not Mary who was

"Last at the cross, and earliest at the grave?"

And was not Mary the mother of the Saviour of the world? Blessed be the name of Mary.





DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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NOURSE, EATON & TOLMAN, PROPRIETORS.  
OFFICE...34 MERCHANTS' ROW.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

#### CALENDAR FOR NOVEMBER.

"The wild November comes at last,  
Beneath a veil of rain."



NOVEMBER, last and dreariest of the autumn months; few welcome thy return with pleasure: few mourn, even, when thy departing footsteps leave us to the mercy of winter, absolute and undoubted. To all inevitable things, a man can make up his mind. When the sun lies upon the hills and the bells are jingling through the streets, we cease to dream of summer, and bend our energies to the great science of keeping warm; but, hardly have we settled down to the conviction that the warm weather is all over, and that henceforth our pleasures are limited to in-doors, when a day dawns upon us so bright, so fair, that it is the very counterfeit of summer, and we wonder that the leaves do not mistake the season, and burst forth again in all the freshness of new life. A soft veil is thrown over the landscape, a hazy light, which makes a picture, a vision of the most common scenes.

There is a large, square field, and in that field a horse is grazing. There is another field adjoining, where three cows and a flock of sheep procure a scanty living among the rocks and dry blueberry bushes. A flock of crows flies over toward the pine woods that lie beyond. Nothing, in point of fact, could be more common-place; yet, through the soft haze of this NOVEMBER af-

ternoon, how rich, how glorious is the picture. The bony old horse, whose ribs you have often counted with heartfelt sympathy, is a much-abused cart-horse no longer; he is one of Landseer's finest productions thrown upon the glowing canvas. And his neighbors in the next pasture have arranged themselves as with a special eye to artistic grouping. Even the crows overhead do not suggest the idea of a defunct animal down in the woods; no, they are part of the beautiful landscape view of which the distant mountains are the background, and the sun, the "skylight." The air, not, indeed, now fragrant with flowers, but itself a mild, all-pervading influence, lulls you to the very borders of sleep and forgetfulness, and you think "how delightful is NOVEMBER." But in the night, the wind goes round to the north-east, and you wake the next morning, and find a wild rain driving over your landscape, your gallant steed of yesterday looks pitifully out of his stable window, a very raw-boned beast indeed. Your cows have disappeared—washed out, it would seem, by the flood, and the sheep have found a miserable shelter under a tumble-down shed. O, the dreariness of *November*! There is no satisfaction to be had out-of-doors, so you look within, for that domestic happiness which is supposed by some to be "the only bliss that has survived the fall!"

But over the family group it is fit we draw a veil, lest we should seem to be personal in our remarks. There are blithe spirits which defy even the depressing influences of an autumnal storm, but it might be a question whether there is not in such temperaments a want of sympathy with nature in any of her moods, a corresponding insensibility to the joyous sunlight, and the thousand charms of a beautiful day. But though we will, in courtesy, imagine the faces and the tempers of your household to be as unclouded in NOVEMBER as in June, we cannot conscientiously extend the same measure of courtesy to your house. A house in the country, standing by itself, can scarcely be

so well made that the rain will not beat in at some quarter. There are the window-sills all covered with towels to keep the water from the paper on the walls, and the curtains carefully tucked aside, and somewhere, "from garret to basement," there are weak points where the drippings will fall on unwary heads, and dark pools will run along the floors, though you may be very certain that Mr. Chip, the carpenter, stopped that leak a month ago. A cold moisture settles on everything you lay your hand upon, and doors open and shut with difficulty, which never stuck before. Then, if ever, one comes to a realizing sense of what Noah and his family must have experienced when "the rain fell upon the earth forty days and forty nights."

But even a NOVEMBER storm has its limits, and when the heavens have wept themselves dry, there come a few days of pale, diluted sunshine, intermitting with some of drizzly rain and cold, grey fog, which would penetrate to the bones of a Falstaff, and finally we are glad to settle down to the good, honest, sturdy cold of DECEMBER.

Not, however, till we have celebrated our annual feast-day—our passover—our *Thanksgiving*—that holiday most rational and peculiar of all holidays. There is the "meeting-house," well filled as to the male parishioners, and if there are vacancies at the other end of the pew, the good minister does not feel slighted, for certain affairs in the culinary line, at the parsonage, have taught him how to make allowances. He does not feel like being severe on those female members of his flock who obey the apostle's injunction, and, if they wish to know anything, ask their husbands at home! Still, he preaches an unusually long sermon on this day, the better to show his thankfulness, and the choir do an unusual amount of singing, and then all disperse to the great festival of the day—called dinner.

And what a similarity the *social boards* of the assembly would present to any person who should be empowered to visit them all. In the middle of the table lies the great turkey, who has gobbled his last gobble, and died "a blessed martyr" for his country's good. On one side of him lie a pair of chickens, whose ephemeral lives never looked upon the winter's snow, and on the other side, another pair from the same brood "are baked into a pie." Then, for dessert, there is a plum-pudding, and every kind of pie that the ingenuity of woman can invent. And there are stories from grandpapa, and talk of politics and crops between papa and uncle, and jests and foolish conversation among the cousins, and little side-snickerings and whisperings among the children. And the night closes in with a dance, or a game at blind-man's-buff, mingled with many reminiscences of other Thanksgivings, and a rev-

erent naming of those who will never more gather with us in our earthly homes. For it is only to children, and very young people, that any anniversary is entirely without sadness. Yet how these meetings revive and keep alive feelings of brotherly love and interest. How they bring the thoughts into one channel, and by so doing, *socialize* not only families, but neighborhoods.

And when you, of your abundance, carry a great basket of provisions to your neighbor in her poverty, how is charity promoted in the giver and thankfulness in the recipient!

#### THE LEECH AS A WEATHER-GLASS.

The following curious account is from the London *Farmers' Magazine* for July, 1860:

The following observations on a leech were made by a gentleman who kept one several years for the above purpose: "A phial of water containing a leech was kept in the lower frame of a chamber window, so that when I looked in the morning I could know what would be the weather on the following day. If the weather proves serene and beautiful, the leech lies motionless at the bottom of the glass, and rolled together in a spiral form. If it rains before or after noon, it is found to have crept up to the top of its lodging, and there remains till the weather is settled. If we are to have wind, the poor prisoner gallops through its limpid habitation with amazing swiftness, and seldom rests till it begins to blow hard. If a remarkable storm of thunder and rain is to succeed, for some days before, it lodges almost continually out of the water, and discovers uneasiness in violent throes and convulsive motions. In the frost, as in clear weather, it lies at the bottom; and in snowy, as in rainy weather, it pitches its dwelling upon the very mouth of the phial. The leech was kept in an 8 oz. phial, about three-fourths filled with water. In the summer the water was changed once a-week, and in winter once a fortnight."

#### THE USE OF RAWHIDE.

How few persons know the value of rawhide. It seems almost strange to see them sell all of their "deacon" skins for the small sum of thirty or forty cents. Take a strip of well-tanned rawhide an inch wide, and a horse can hardly break it by pulling back—two of them he cannot break any way.

Cut into narrow strips and shave the hair off with a sharp knife, to use for bag-strings; the strings will outlast two sets of bags. Farmers know how perplexing it is to lend bags and have them returned minus strings.

It will out-last hoop iron (common) in any shape, and is stronger. It is good to wrap around a broken thill—better than iron.

Two sets of rawhide halters will last a man's life-time—if he don't live too long.)

In some places the Spaniards use rawhide log-chains to work cattle with, cut into narrow strips and twisted together hawser fashion. It can be tanned so it will be soft and pliable like harness leather. Save a cow and "deacon's pelt" and try it.—*William Rhodes, in Country Gentleman.*

### THE MAINE STATE SHOW.

Our brother farmers of Maine held their Annual Cattle Show and Fair at Portland, commencing on the 25th of September and continuing through the week,—one day having been added to the original time contemplated, owing to bad weather interfering with some of their arrangements. Having the good fortune to be present on the third and fourth days, we propose briefly to mention some of the things worthy of note that fell under our ken.

The grounds fitted up for the display of stock, &c., were on the top of Munjoy Hill, or rather on the eastern side, exposed to the full sweep of the winds, which made it rather uncomfortable most of the time we were there. The view from this spot is a lovely one, almost enough to overbalance its objections.

The show of stock was very good indeed, but it seemed to us not quite equal to that of the previous year.

There was quite a show of horses, but the Horse Show at Augusta, the week previous had detracted somewhat from this portion of the exhibition.

The trial of working oxen, on Wednesday, attracted much attention, and the animals showed docility, patience and good training in a remarkable manner.

As has been the custom of late years, at most of the Agricultural Shows, a large portion of the time and an undue proportion of the premiums, were devoted to the exhibition of fancy horses.

Sheep, swine and poultry were few in numbers, but of very good quality. A few of the flocks of fine woolled sheep from Somerset county, that we noticed at the last Show, would have added greatly to the attraction.

The show of manufactures, implements and fancy articles was held in the splendid City Hall building. We found this in many respects superior to any previous display by this Society. The fancy work was not very plenty, but we noticed some highly creditable specimens of feminine ingenuity and patience.

The Portland Horticultural Society united with the State Society, and made up an excellent show of fruit and flowers.

The Dairy department showed much falling off, both in quantity and quality, owing to the severe drought throughout the State.

The show of agricultural implements contained little that was new or striking. The household furnishing department was well filled.

**CORN AND COB MEAL.**—A correspondent of the *Ohio Cultivator*, who has fed not less than

5000 bushels, mostly ground in the Little Giant Mill, states with great confidence his conclusion that cob meal is the safest and cheapest feed that is raised in Ohio. Cattle that cost him \$18 per head in the fall, brought him \$45 69, after consuming only about 12 bushels, 70 lbs. in the ear per bushel, ground and cooked. Grinding and cooking, he affirms, doubles its value.

### CHEAP RAILROADS.

I am gratified in a late number of the *Homestead* to see this matter broached. Although it is said the railroad whistle is now heard in every town in Connecticut, I infer from the amount of money which has been lost by railroads, that it is doubtful whether they will very soon come any nearer to our farms than they now are. Most of the farms in this State have more or less besides the produce of the farm to be conveyed to and from the railroads, and this is probably upon the increase; hence the great necessity of some other means of transport than that approached by our common roads. For this purpose wooden railroads, in my view, are meriting our consideration. They consist of two longitudinal sills, on which the wheels of a wagon are made to run, say four inches thick, one of sufficient width to admit of two pieces of scantling being spiked on, leaving a rut or space between them for the wheel of one side of a wagon to run on. The other side requires no rut, but should be of sufficient width to accommodate vehicles with axles of various lengths. The team, which travels between the sills on the earth, will draw a load with more ease than on a plank or macadamized road, no cross ties being required. These are easily made, indeed a teamster can carry two pieces of scantling two feet long, made like a wedge on end and side; these placed in the rut forward of the wheels will enable him to turn out at any place, and by this aid he can get a loaded wagon upon the road. A prop or brace may be attached to the hind axle to be applied going up hills to allow the team to rest, and on steep hills.

A common road should be made outside of these rails to go down on. The slight cost of this kind of road compared with other improved roads is certainly worthy of consideration, and they are well adapted to sandy and soft soils and hills, if not other lands.

More remains to be said in relation to them, but the shower which drove me into the house has passed, and I must away to the field.—*Homestead*.

**PUTRIDITY IN WELLS.**—Sometimes the water in wells suddenly acquires a putrid taste and smell, as though some animal matter was undergoing decay therein, yet which upon careful examination is found not to be the case. The *Homestead* tells of such an instance, and a remedy was found in the thorough agitation of the water, by working a chain pump for two hours, bringing the water more or less in contact with the air. The next day the water was as sweet as ever. In the case of a cistern of filtered rain water, the same remedy of agitation was resorted to with equal success.

For the New England Farmer.

### A PROFITABLE FARM.

The question whether farming is profitable has been well discussed in your valuable paper, and the theory well developed. I have a few facts on the subject which I think may prove interesting and perhaps instructive to my brother farmers.

Not many days since I had the pleasure of visiting the farm of my old friend, ASA G. SHELDON, Esq., of Wilmington, and as I walked over his broad fields, and viewed the wonderful improvements that labor, rightly and intelligently directed, had produced, I determined to make a few notes of what I saw for the *N. E. Farmer*.

Mr. Sheldon has 1250 apple trees, of which 350 have been set 7 years, and are just beginning to bear; 300 ten and eleven years, 520, some full-grown and some set only a few years, and 80 twenty years. These last will bear five barrels apiece every other year.

All these trees are in fine growing condition, and will all be as valuable in twenty years as the best of them are at the present time.

The land on which they stand is common hard land, a gravelly loam, the subsoil gravel mixed with clay.

In answer to the question how many acres of improved swamp he had, the reply was, about twenty. This land was formerly covered with a growth of maple wood, but, by the indefatigable industry of Mr. Sheldon, the twenty acres have been cleared of trees and stumps and are now among the richest lands of the State. Ten acres are covered with the rankest growth of potatoes that I ever saw; some of the vines are six feet long, and cover the ground entirely.

I should suppose the potatoes would yield at the rate of a bushel to ten hills throughout the field. One acre of this land, I am told, has borne potatoes eight years in succession and the present crop is equal to any former one.

Such land is worth \$30 more than upland per year to raise potatoes in. The other ten acres are in grass, and bear at the rate of 35 cwt. to the acre. Now for the figures.

80 trees at \$20 each.....	\$1,600
650 " 10 " .....	6,500
520 " 5 " .....	2,600
20 acres swamp at \$300 per acre.....	6,000

Total.....\$16,700

Value of present crop of potatoes in the ground.....\$1,000

Let all doubters of the profits of farming visit Mr. Sheldon's farm, for "seeing is believing."

ADDISON FLINT.

North Reading, Mass., Sept. 4, 1860.

**FLOWERS FOR WINTER.**—Flowers intended for winter blooming, need a season of repose, especially tropical plants, such as geranium, fuchsia, &c., which should be allowed rest from growth during the months of July and August, by almost entirely withdrawing the supply of water. Of course the leaves will fall off, but the plants will be fitted to start into fresh and vigorous growth, as soon as the water is again supplied. Previous to this, the branches of the fuchsia should be pruned in, and water given sparingly at first, increasing the supply, as the young shoots grow. Geraniums should be partially shaded from the

sun after they are cut down, which should be as soon as their flowering season is over. Until they are re-potted into smaller pots, about the beginning of the month of September, very little water should be given them. Geranium cuttings may be put in at the time they are cut down. For this purpose, select the shortest and stockiest shoots with a growing point, and divest them of most of their leaves; keep rather dry till they show symptoms of growth, and success is almost certain.—*Dollar Newspaper*.

For the New England Farmer.

### THE BIRDS OF NEW ENGLAND—No. 2.

#### EAGLES.

Golden Eagle—Bird of Washington—Bald or White-Headed Eagle.

Leaving the family of the indolent Vultures, we pass to the second family of the rapacious birds, the *Falconidae* (Falcons,) constituting by far the most numerous division of the diurnal Birds of Prey. They, in general, possess a daring, and often cruel spirit, and subsist almost wholly upon living prey, for the capture of which nature has eminently qualified them; yet the degree of courage manifested by different species is often widely at variance. They are solitary in their dispositions, exceedingly shy of man, and though a few are generally dispersed over our forests, and make occasional hostile inroads upon the poultry, the greater part prefer wild, mountainous districts for their retreat, particularly during the breeding season, and in general seldom molest the property of the farmer, while a few may be regarded as useful, from the number of annoying vermin and reptiles they destroy. Their extreme shyness has rendered the study of their history not a little difficult, and being generally few in numbers, there are some species concerning which but little is definitely known; and the long period required for many of the species to arrive at a mature state of plumage, as well as the diverse markings of the plumage of the different sexes of the same species, have given rise to serious difficulties in discriminating between different species, and the young and adult of the same; and it is surprising that ornithologists have not been led more frequently into errors.

Some twenty or more species embraced in this family are found to more or less inhabit New England, including as it does the Eagles, Hawks and Buzzards; but a few, however, are observed to be common, and the greater part are quite rare; and in various sections of the country, as the older forests are cleared away, the numbers of the more common species are every year diminishing. In this class of birds, the female is generally larger, and occasionally one-third larger, than the male, more courageous in hunting, and in the defence of her young, and of much handsomer plumage, as, indeed, is the case throughout the order; and but one brood of young is raised a year.

To the *Eagles* (forming the sub-family *Aquilinae*), is generally submitted the first rank, from their being the most powerful of all the birds of prey, as well as from their large size and noble aspect. Of the *true*, *Eagles* (genus *Aquila*), the Golden Eagles, (*Aquila chrysaetus*, Wil.; *Falco chrysaetus*, Linn.) is our only American repre-

sentative. This noble and daring bird is found throughout the northern parts of both continents, though nowhere common, inhabiting rough, mountainous regions, generally remote from man, and though a terror to the wild game of the forests, seldom molesting the property of the farmer. A few individuals, according to newspaper reports, are killed in different parts of New England every year, and the fact is always recorded as a thing worthy of notice. It is said to breed in almost inaccessible cliffs. The Ring-Tailed Eagle, (*Falco fulvus*, Wils.,) formerly supposed to be a distinct species, is now known to be a young Golden Eagle of the first year; but Wilson, supposing it distinct, in describing it, thus speaks of it: "This noble bird, in strength, spirit and activity, ranks among the first of its tribe. It is found, though sparingly dispersed, over the whole temperate and arctic regions, particularly the latter; breeding in high, precipitous rocks, always preferring a mountainous country." The adult Golden Eagle is three feet in length, and measures upwards of seven feet across the expanded wings. The color of the head and neck is a deep brown, bordered with tawny or ferruginous; general color of the rest of the plumage, dark brown. The lofty, soaring flight of the Eagle is proverbial, and of none is it less so than of the present species.

The Washington Eagle, or Bird of Washington, (*Haliaeetus Washingtoni*, Aud.,) is a very rare bird, and the largest of its tribe. It was first seen by Audubon in 1814, and by him its existence and history was for the first time made known to the world. It was not until some five years after this date, however, that he was successful in procuring a specimen, though in the mean time his ever watchful eye several times caught sight of it in his excursions, and only a heavy storm prevented his securing it some two years sooner. This truly majestic bird measures three feet seven inches in length, and ten feet two inches in extent; and from Mr. Audubon's description seems to be quite distinct from any other species, though in color somewhat resembling the young of the Sea Eagle, (*Falco albicilla*, Linn.,) of Europe. Though exceedingly rare, it seems to be widely distributed in the northern parts of America, breeding on high cliffs, and subsisting chiefly on fish, which it takes with ease, in the manner of the Fish Hawk or Osprey, and not by plundering this noble bird of its hard earned prey, as is the practice of the Bald Eagle. In the zoological report of Massachusetts it is spoken of as occasionally seen here in winter, and from an account I have recently received of an immense Eagle killed in Berkshire county, I hardly hesitate to consider it the same. Interesting extracts from Mr. Audubon's history of this bird might be given, did space permit. In reference to the name he has bestowed upon it, he observes: "The name which I have chosen for this new species of Eagle, 'THE BIRD OF WASHINGTON,' may, by some, be considered as preposterous and unfit; but as it is indisputably the noblest bird of its genus that has yet been discovered in the United States, I trust I shall be allowed to honor it with the name of one yet nobler, who was the saviour of his country, and whose name will ever be dear to it. \* \* \* If America has reason to be proud of her Washington, so has she to be proud of her Great Eagle."

The White Headed Eagle, or Bald Eagle, (*Haliaeetus leucocephalus*, Sav.; *Falco leucocephalus*, Linn.,) the young birds being also known as the Gray Eagle, is found throughout the northern parts of both continents, but is said to be more numerous in North America than elsewhere, and being our chosen national emblem, is, perhaps, the more worthy of particular notice. Concerning this daring tyrant of the air, I wish I could present the reader with the felicitous descriptions of both Wilson and Audubon, but must be content with condensing from the elaborate accounts of these admirable authors the more important points in its history, with perhaps brief extracts in their own words. At certain seasons, this species is generally dispersed over the New England States, and is the most common of our Eagles; but during summer is more confined to the sea-shores, or the larger rivers and lakes, to obtain the fish that form its chief food at this season, and it is said to be always quite abundant about the Falls of Niagara. Geese, swans, ducks and other water fowls, together with pigs, lambs, and sometimes young fawns, furnish it with abundant food during the remainder of the year, and which generally fall an easy prey; but in times of great scarcity it will descend to partake of the most putrid carrion; and the collected groups of gormandizing vultures, as Wilson observes, "on the approach of this dignified personage, instantly disperse, and make way for their master, waiting his departure in solemn silence, and at a respectful distance, on the adjacent trees." His great strength, unequalled power of flight, reckless daring and cool courage, render him conspicuous at all times among his fellow-inhabitants of the air; while his cruel, overbearing and tyrannical disposition is not a less distinguishing characteristic. And though so well qualified to procure his own subsistence, no sooner does spring open, and the Fish Hawk appear over our lakes and rivers, and along the sea-shore, than he at once becomes a selfish oppressor of this admirable bird, systematically watching his manœuvres, and robbing him of his well-earned prey, whenever his appetite prompts him, subsisting for months almost wholly on the labors of this regal fisher. His manner of capturing the swan in the air, and the porpoise in concert to worry the ducks and geese, and by diving beneath the waters, seem able to elude these destroyers—the male and female darting alternately upon them as they rise to the surface—at once evince the cunning and perseverance of this bird.

This Eagle breeds in trees, building a large nest of coarse sticks three to five feet in length, pieces of turf, rank weeds, &c., the whole forming a ponderous mass, six or more feet in diameter, and often as many deep, and visible at great distances. The same nest is often occupied for several years in succession. Incubation often commences in January; and while the young are in the nest, it is perilous to attempt an approach to it.

The White-Headed Eagle measures three feet or a little less in length; extent of wings generally seven feet. Color of the head, neck and tail, in the adult birds, pure white, sometimes inclining to yellowish; and the whiteness of the head probably suggested the epithet *bald*, applied to this eagle, as the whole head is thickly clothed



with feathers; plumage of the body and wings a deep chocolate brown. The following extract from Wilson's account may throw more light upon its history. "Formed by nature for braving the severest cold; feeding equally upon the produce of the sea and of the land; possessing powers of flight capable of outstripping even the tempests themselves; unawed by anything but man; and from the ethereal heights to which he soars, looking abroad at one glance, over an innumerable expanse of forests, fields, lakes and ocean deep below him, he appears indifferent to the little localities of change of seasons; as, in a few minutes, he can pass from summer to winter, from the lower to the higher region of the atmosphere, the abode of eternal cold, and then descend, at will, to the torrid or the arctic regions of the earth."

J. A. A.

### TREE PLANTING.

"Have you never heard of the student, who, on being told that the crow would sometimes live a hundred years, bought a young crow to try the experiment?" Yes, indeed, we have heard of him—the irony is excellent—and of Dr. Johnson's growl about "the frightful interval between the seed and the timber." Still, we say, plant trees. They who plant at once, instead of wasting their breath in selfish complaints of the shortness of life, find luxuriant foliage waving over them much sooner than they expected. But, whether you live to see the maturity of your trees or not, be benevolent enough to plant for posterity. Transmit to your children the inheritance of rural beauty received from your fathers, greatly augmented. By all means plant, and plant well, and the result will overpay the labor. And let not your work end with planting. Feed your trees from year to year with generous food, and guard them from injury. And, in the words (slightly altered) of an old planter: "What joy may you have in seeing the success of your labors while you live, and in leaving behind you, to your heirs or successors, a work that, many years after your death, shall record your love to your country! And the rather, when you consider to what length of time your work is like to last." If you have country homes to embellish, be content with simplicity. Remember that a great establishment is a great care, and that the proprietor is apt to become a slave to it. Let your dwelling-places be marked with what painters call "repose." Make them the abodes of comfort and refined enjoyment, places which will always afford you agreeable occupation, but not oppress you with care.—*North American Review.*

### TO PROTECT A SHINGLE ROOF FROM FIRE.—

The editor of the *Albany Knickerbocker* says, that a wash composed of lime, salt and fine sand or wood ashes, put on the ordinary way of whitewashing, renders the roof fifty-fold more safe against taking fire from falling cinders, or otherwise in case of fires in the vicinity. It pays the expense a hundred-fold in its preserving influence against the effect of the weather. The older and more weather-beaten the shingles, the more benefit derived; such shingles are generally more or less warped, rough and cracked. The application of the wash, by wetting the upper surface, re-

stores them at once to their original or first form, thereby closing the space between the shingles, and the lime and sand, by filling up the cracks and posts, in the shingle itself prevents its warping for years if not forever.

*For the New England Farmer.*

### MOWING MACHINES.

"Lost men suspect your tale untrue,  
Keep probability in view."

MR. EDITOR:—In your monthly for September, I notice an article on the 427th page, "A new trial of an old machine," you call it. You say that you witnessed Nourse, Mason & Co.'s Ketchum mowing machine cut an acre in twenty-four (24) minutes, and further state, that "Mr. Shurtleff and several of the bystanders told you that an acre was cut, and cut well, the day before, in fifteen minutes."

The mower cut a swath five and one-half feet wide, (5½) or just one-third of a rod wide. Now an acre one-third of a rod wide, would be four hundred and eighty (480) rods long, or just one and a half miles. Thus the team must have been driven at the rate of six miles per hour, which is a good smart trot.

But suppose the acres to have been a square of 10 rods by 16, you must go round it fifteen times, making sixty quarter (¼) turns, and at each end, the horses had to go about a rod beyond the grass, and with the extra travel on the coming in, will make another quarter of a mile travel, making 6½ miles travel per hour. You do not give the shape of the acre mowed, but the one I have supposed, would be as favorable as would usually be laid off. Then think of turning on a right angle sixty times, and usually having to back a little, owing to having gone out too far. It would take the best part of 15 minutes to make the 60 stops and ¼ turns, particularly if you were turning at the rate of 6½ miles per hour. Why did they not show you their best work, and not be about two-thirds longer mowing their acre, that day, than they were the day before? That a paced acre can be cut in 24 minutes, I will not doubt, but I do not believe that a guessed acre can be cut in 15 minutes.

I once heard a man say "he could reap a *guessed* acre in a day with ease, and he could reap a *paced* acre, but he'd be d— if he would reap a *chained* acre, any way."

FIGURES.

REMARKS.—We recognize the hand of an old and valued correspondent in the above. We have long been in the habit of *pacing* out acres in our farm operations, and believe we come out pretty nearly correct. We stated what we did, and saw on Mr. Shurtleff's farm, and cannot doubt now but it was substantially correct. The horses employed did not trot, but they were large and powerful, and moved all the time on a very fast walk. Our friend's quotation may answer for his poetic temperament—but for our matter-of-fact purposes, we did not pause to temporize with the truth, but went straight forward to the work, and stated it just as it occurred. When our horses

travel on a "good smart trot," and keep on so for an hour, they make about *ten* miles, instead of *six*.

#### POVERTY NOT SO GREAT A CURSE.

If there is any thing in the world that a young man should be more thankful for than another, it is the poverty which necessitates his starting in life under very great disadvantages. Poverty is one of the best tests of human quality in existence. A triumph over it is like graduating with honor from West Point. It demonstrates stuff and stamina. It is a certificate of worthy labor, creditably performed. A young man who cannot stand the test, is not worth anything. He can never rise above a drudge, or a pauper. A young man who cannot feel his will harden, as the yoke of poverty presses upon him, and his pluck rise with every difficulty poverty throws in his way, may as well retire into some corner and hide himself. Poverty saves a thousand times more men than it ruins; for it only ruins those who are not particularly worth saving, while it saves multitudes of those whom wealth would have ruined. If any young man who reads this, is so unfortunate as to be rich, I give him my pity. I pity you, my rich young friend, because you are in danger. You lack one stimulus to effort and excellence, which your poor companion possesses. You will be very apt, if you have a soft spot in your head, to think yourself above him, and that sort of thing makes you mean, and injures you. With full pockets and full stomach, and fine linen and broadcloth on your back, your heart and soul plethoric, in the race of your life, you will find yourself surpassed by all the poor boys around you, before you know it.

No, my boy, if you are poor, thank God and take courage; for He intends to give you a chance to make something of yourself. If you had plenty of money, ten chances to one, it would spoil you for all useful purposes. Do you lack education? Have you been cut short in the text book? Remember that education, like some other things, does not consist in the multitude of things a man possesses. What can you do? That is the question that settles the business for you. Do you know your business? Do you know men, and how to deal with them? Has your mind, by any means whatsoever, received that discipline which gives to its action power and faculty? If so, then you are more of a man, and a thousand times better educated than the fellow who graduates from colleges with his brains full of stuff that he cannot apply to the practical business of life—stuff, the acquisition of which has been in no sense a disciplinary process as far as he is concerned. There are very few men in this world less than thirty years of age, unmarried, who can afford to be rich. One of the greatest benefits to be reaped from great financial disasters, is the saving a large crop of young men.—*Timothy Titcomb*.

**LONG ISLAND LANDS.**—Application has been made to us for the pamphlet on the Long Island Lands to which we referred last week. We have but a single copy. It can be obtained by sending to J. G. ELLIOTT, Esq., 54 Wall Street, N. Y., Box 3443.

*For the New England Farmer.*

#### CAUSE OF THE POTATO ROT.

MR. EDITOR:—I have heretofore offered *seven* reasons, to show that the potato rot is not, and can not, be caused by insects. No attempt has, as yet, been made to answer any one of these seven reasons, or to show that they are not well founded in the nature of things, or in point of fact. They seem to be regarded as impregnable and unanswerable. It is true, Mr. Lyman Reed, of Baltimore, has published a *certificate* from seventeen members of Congress, who assert that, on a certain day, at Washington, the capital of the nation, they saw, by the aid of the microscope, certain *insects*, on some potatoes, in the act of sucking and biting them; and, hence, they jumped at the conclusion, already forestalled by the assertions of Mr. Reed, that these and such like insects are the cause of the potato rot. Such certificates and assertions do not prove anything. They only go to show how liable the most gifted minds, are to be deceived, and to substitute, for the cause of a thing its effect, or consequent, or concomitant.

Let it be admitted, for I have no disposition to deny that those seventeen members of Congress actually saw what they say they saw, insects on those decaying and rotten potatoes; were they, therefore, justified in jumping at the conclusion, and drawing the inference they did? By no means! Before I draw any such conclusion or inference, I wish to make a great many inquiries, examinations and investigations, and ask a great many questions. I wish to know what causes vegetables generally to rot and decay? Is there any general or known law relating to the rot and decay of vegetables? If so, what is it? If insects of some kind are always found, by the aid of the microscope, in all incipient decomposition, does this fact prove, that they cause the rot and decay? Is it a fact, that insects cause all the vegetables which they bite to rot and decay? If not all, which ones in particular, and why? If I can obtain a satisfactory answer to the above questions, I believe I can explain the cause of the potato rot to the satisfaction of every one who has no personal or pecuniary interest to subvert.

It would be strange, indeed, if some kind of insects were not found, by the aid of the microscope, in all kinds of rotten and decaying vegetables. This is as true of rotten vegetables, as of rotten animals. All dead animals waste away and are consumed by insects, while their death has been owing to other causes. No one, for instance, who finds a dead horse full of maggots, for a moment believes that the maggots have killed the horse, though they be found in every part of the dead animal. And what is so manifestly true with regard to a dead horse, may be, and probably is, equally true with regard to dead vegetables. If it be unreasonable to believe that the maggots have killed the horse, it is equally unreasonable to believe that insects are the cause of the potato rot, because they happen to be found upon the rotten tubers. They may be the consequent or concomitant of the rot, but not the cause of it.

Besides it seems to me strange, passing strange; in fact, the idea seems preposterous, that insects, by the mere act of eating or sucking potatoes, on which they subsist, and which are necessary to their subsistence, should infuse a deadly poison



into them, causing them to rot, and thus not only destroy their own food and that of their offspring, but also destroy their own future offspring by causing the very potatoes to rot, on which their nits or eggs are laid. This is a species of insecticide not laid down in any of the books, and is far from being a true representation of insect economy. At least, it is not thus with other insects. They do not poison the vegetables on which they subsist. They bite them; they suck them; they devour them; but they do not poison them and cause them to rot. There is no venom in their bite; so that the vegetables, thus bitten and wounded by them, do not blast and rot at a precise, exact time, and at a particular season of the year, always taking place within the limits of a very few days.

This, if true with regard to the potato rot, must be regarded as the commencement of a new and strange economy of vegetable and insect life. For these potato insects not only destroy what they eat, but they poison what they do not eat, and render it useless to themselves and others. It will require the most positive, direct and convincing proof to show, that insects infuse a poison into potatoes sufficient to cause them to rot; whereas, it is very easy to prove that the various kinds of insects breed in rotten and decaying vegetables, while the rot and decay are owing to other causes.

Besides, how can we defend the instincts of these potato insects which lead them to poison and destroy the very vegetables on which they and their whole race depend for subsistence? No other insects behave in this manner! No other insects are endowed with such absurd and preposterous instincts! JOHN GOLDSBURY.

Warwick, Mass., 1860.

#### PHOSPHORUS—SOURCE AND NATURE.

Phosphorus is but sparingly diffused as a component of minerals—it is to the animal kingdom that we turn for our supplies—to bones and fluids of the body. These are our magazines of phosphorus, from which it is extracted in large quantities now required for matches and the other manufactures into which it enters.

The leading characteristic of phosphorus is its extreme combustibility. Place a small fragment of it in a glass tube, apply heat and ignite it, when, on impelling a current of air through the tube, the phosphorus burns with great rapidity. The combustion having terminated, two different residues are produced, one a red colored substance and the other a white one. The latter, or white, is an acid compound of phosphorus with oxygen. The former was long imagined to be a combination of phosphorus with oxygen, also, but in a lesser ratio than necessary to constitute an acid. Within the last few years, however, M. Schrotter, of Vienna, demonstrated that the red compound in question was merely phosphorus. No combination has taken place to form this compound, but the phosphorus has assumed a second, or allotropic condition, just as sulphur does under the operation of heat.

Common phosphorus has to be kept in water, for the purpose of guarding against spontaneous combustion; allotropic phosphorus, however, may be kept unchanged in atmospheric air; indeed it may be wrapped up in paper, and carried in the pocket even with impunity. Common phospho-

rus readily dissolves in the sulphuret of carbon, whereas allotropic phosphorus does not.

Phosphorus exists in all grains, and it forms a minute portion of every loaf of bread we eat. It exists in the human brain, but the greatest quantity of it is found combined with lime in the bones of animals. The phosphate of lime sells at high prices, as a fertilizing agent, simply because it is a substance difficult to obtain large quantities of. Unlike sulphur and lime, which are obtained most abundantly from the mineral world, all our phosphorus is obtained from organic creation.—*Scientific American*.

For the New England Farmer.

#### FERTILITY OF MOUNTAINS.

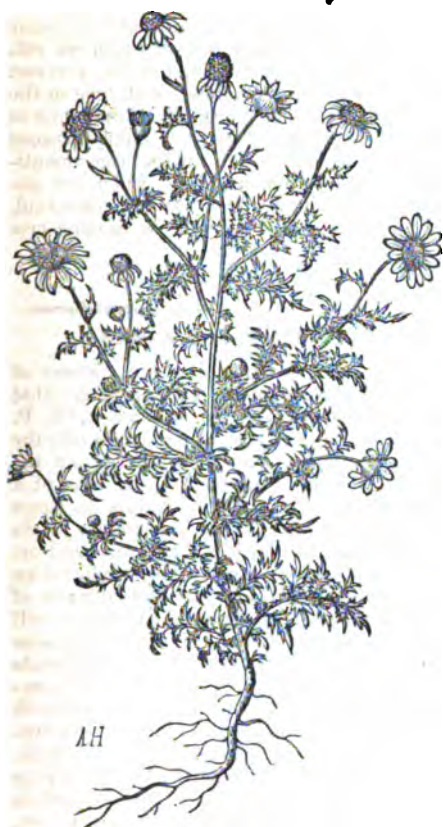
MR. EDITOR:—In examining the *Farmer* of Sept. 8th, I find a few rather singular ideas (that is, to me,) advanced. Your correspondent, "S. P. M.," I see, is trying to give us an insight into the gigantic operations of nature to bring about the result of rendering soil lying at the base of a mountain fertile. That Dame Nature at times does bring into the field all her tremendous forces no one questions. But is it not in the general order of things, that a more silent, unobtrusive agency is employed? The constant attrition of water running down the slopes of a mountain will wear away the hardest rock; it is borne to the plains below to rejuvenate the famished soil. The winds of heaven, laden with a great variety of compounds, among which are free carbonic acid, which vegetation absorbs, and the compounds of nitrogen which the soil will absorb in large quantities, will go farther toward fitting the soil for a crop than all the rocks and boulders precipitated to the plains by Friend "S. P. M.'s" frost-power. How in the name of reason are nodules of rock, of any size, lying loose and scattered on the surface, to be disintegrated? I cannot tell, nor do I believe that "S. P. M." can. Not many miles from the town in which I reside, is a tract of land lying at the base of the Green Mountains, but so far removed that the rocks and boulders, to do their utmost, cannot reach it. This tract is from one-half mile to two miles in width, and fifteen or twenty miles in length, a share of which has been under cultivation 30, 40, and some as long as 60 years. It will produce about one crop of corn, then three or four crops of rye; then it wants rest two or three years, when the same rotation can be gone through with again, and this without manure. The land is full of small stones rarely weighing as much as 50 pounds, and from that down to the smallest pebble. They are composed mostly of silica. Now how is soil rendered fertile short of the action of the atmosphere? I see no other solution of the question. Can any one else?

REGULUS.

Ripton, Vt., Sept. 15, 1860.

SHEEP MANURE.—In England land is sometimes manured by confining sheep at night on a small surface, and moving the fence or hurdles, till the whole field has been treated to a few nights' lodging. The dressing thus given by 300 sheep, Stephens says, is sufficient in a week for an acre, and is worth fifteen dollars.

## GARDEN CHAMOMILE.



In our boyhood we enjoyed the great privilege of running at will through a well-kept garden, stored, in their season, with fruits, flowers and vegetables. Sometimes we were pressed into service there, so that we got lessons in right angles as well as straight lines, and became skilful in weeding, thinning, &c. The impressions made in that garden upon our ductile mind, and the knowledge gained in that miniature world, have never been forgotten, and never will be effaced from our memory, so long as reason remains. We would not part with those early impressions for a kingdom. They well up, fresh as yesterday, introducing anew a troop of loving brothers and sisters, respected parents, or friendly neighbors, "walking in the garden," tasting this or plucking that, or mingling in sweet converse under the friendly shade of trees bending with fruit! Not one is missing in the group that the remembrances renew, though some have ascended to the garden in Paradise above.

In one of the angles of this garden was a large chamomile bed, as thick as a mat, as green as a leek, and the spot we ran to and rolled upon when our rows were weeded out. There was fun in it, and there was fragrance, too; for like some

good persons, it did not show its virtues until trodden upon or pressed in some other way. Possibly, kind reader, you, too, may have frolicked with brothers and sisters on a chamomile bed in childhood, and that figuring and speaking of it here, may revive in you some pleasant recollections of those early days. Darlington, in his charming book on "American Weeds and Useful Plants," says:

"The whole plant, (and particularly the heads of flowers,) is a fine aromatic bitter, and deservedly popular as a tonic medicine,—for which purpose it is generally cultivated. It is an old and still prevalent opinion, that this plant thrives better for being trampled upon or kept prostrate, whence it was popularly called '*the Whig Plant*' during the revolutionary contest in the United States. The notion is thus incidentally alluded to by Shakespeare, in the first part of his *King Henry IV.* 'For though the Camomile, the more it is trodden on the faster it grows—yet youth, the more it is wasted the sooner it wears.' This is said to be naturalized in Delaware; another species is quite common about New York, *A. arvensis*, L., which has the leaves less divided and the chaff of the receptacle pointed."

For the New England Farmer.

## PIANO vs. WASH-TUB.

MR. EDITOR:—The farmers' wives and farmers' daughters have been patiently heard through the columns of your valuable paper, and now will you be so kind as to grant an old spinster a similar favor?

I am not a farmer's wife or a farmer's daughter, but notwithstanding this, I profess to know something about indoors farming, and do know that where there is a will there is a way. As far as work is concerned, I do not think the farmer's wife has, as a general thing, a great many over-tasks to perform; there may be some exceptions, no doubt there are, but generally the husband has much the heaviest burden to bear; he has, in addition to the management of his farm, to provide for every necessity, both in doors and out, and his evenings are usually spent (if he is industrious, as all good farmers are,) in a manner alike useful to himself and family. At this season of the year, you will find him at work, and often until a late hour, at night, either husking corn or paring apples, and very often of a rainy day, while his wife "bakes and brews," you will find him busy at the churn, and he performs his tasks cheerfully. He does not desire to squander his time by the side of some musical instrument, while others perform the tasks which of right belong to him. Let the wife exercise an equal amount of patience, and domestic squalls would be less frequent.

Why, my dear good ladies, just compare your lot, if you please, with that of your grandmothers'; compare the old fire-place with its big crane and pot hooks, and the old brick oven, with your stoves of the present day, so convenient and handy; and your churns, with the old upright bungling thing of a half a century ago; and then you may go on comparing ancient with modern, until you can but come to the conclusion that you bear

light burdens compared with your grandmothers. The only piano they ever knew was the spinning wheel and loom, the only seraphine the wash-tub and churn, and, in fact, no music sounded sweeter to the ear of our mothers and grandmothers, than the cackling of the hens, ducks, turkeys and geese, when mingled with the lowing of the herds and squealing of the pigs; and they were thought to be far below the generality of women, unless they raised from ten to fourteen fat and rugged girls and boys, and provided them all with clothing, both summer and winter, and spun and wove with their own hands. They were educated as farmers' wives should be educated; not to play on a piano, or make pictures, but to *spin and weave*. "*bake and brew, make and mend*," while their husbands would plow and sow, mow and rake, reap and thrash; and in nine cases out of ten, they were contented with their lot!

If the farmers' daughters of the present day are afraid to marry farmers because there is work to be done, they ought to remain single, like this

OLD SPINSTER.

Claremont, N. H., Sept. 24, 1860.

*For the New England Farmer.*

#### RUSTIC PICTURES.

It is a frequent complaint that a farmer's house must be destitute of many of those "adorings" which make home cheery, "for want of profits." Pictures are referred to. It is a fact that fine paintings or engravings are so high-priced that many families, farmers and others, are unable to purchase them. Yet I think there are several ways by which we poor unfortunate (?) farmers' daughters may obtain substitutes, quite as pretty, and with trifling expense. Have you ever preserved autumn leaves? Now, while the trees are in their glory, try it. Gather fair leaves of many varieties and colors, and press them until perfectly dry. Then arrange them in wreaths or bouquets upon fine drawing paper, fastening with gum arabic, and varnish them with white varnish. A picture is of little value unless it brings the reality to the mind's eye. What a panorama of life-scenes this simple autumn wreath calls forth!

Here is a golden hickory leaf—do you think of those mornings, those chill, cold mornings, when we climbed the hill, the grass crisp with frost, crackling with every step,—to the walnut trees upon the summit, and how we watched for sunrise ere we filled our baskets, and wondered why we were in the sunlight first, while home, in the valley, lay sleeping in shadow?

A crimson maple—a May day scene, when wistful, longing eyes have vainly searched for violets and wild-flowers, and a maple is discovered with its red banner unfurled. Were ever flowers so beautiful? Yellow birch—with one consent, we'll pass it by, with its unwelcome visions of unlearned tasks and broken rules! Brown oak,—the proud old oak by the school-house,—would you like to swing on its branches now? Ferns,—how they bend to kiss the water which goes laughing on over the stones! But I am writing too long. Just try it, farmers' girls—and mark, if you have not pictures upon the walls that will talk to your hearts through the winter days, of which these autumn leaves are "avant couriers."

Sept. 26.

ANNA.

*For the New England Farmer.*

#### SMYRNA, OR BEARDLESS WHEAT.

MR. BROWN:—Enclosed with this I send you a sample of my Smyrna wheat, grown the past two years on the town farm under my care.

I found the land of a light, sandy loam, with a subsoil of loose gravel and coarse sand, 4 1-5 acres. It had been planted and sowed alternately with corn and rye, with no manure except that which was put in the hill, and that rather sparingly. I plowed twice one year last April, and top-dressed with meadow mud and lime, 2 1-5 acres last year, and 2 acres the present year, allowing 3 casks of lime and 3 cords of mud that had been exposed to the action of the frost the previous winter, to the acre. This compost, after being mixed three times in ten days, was spread evenly on the land before sowing the wheat. I then sowed 2 1-5 acres thus prepared with 5 bushels of Smyrna, or beardless wheat, and in August I gathered what yielded 47½ bushels of the best wheat I have ever seen. I had from 5 bushels and 11 qts., 201½ lbs. of superfine extra flour. I have managed the other two acres the past season in the same way, and have 42 bushels of clean wheat, like the sample I send you. I would state that the Middlesex South Agricultural Society, last year, gave me a premium of ten dollars for my experiments with manure as shown by the above results. ISAAC OSGOOD.

Marlboro', Sept., 1860.

REMARKS.—We thank you for the wheat and for the good example set your brother farmers, and especially for the detailed account sent us.

#### SLEEP.

There is no fact more clearly established in the physiology of man than this, that the brain expends its energies and itself during the hours of wakefulness, and that these are recuperated during sleep; if the recuperation does not equal the expenditure, the brain withers—this is insanity.

Thus it is that, in early English history, persons who were condemned to death by being prevented from sleeping always died raving maniacs; thus it is, also, that those who are starved to death become insane; the brain is not nourished, and they cannot sleep. The practical inferences are these:

1. Those who think most, who do most brain work, require most sleep.
2. That time saved from necessary sleep is infallibly destructive to mind, body and estate.
3. Give yourself, your children, your servants—give all that are under you the fullest amount of sleep they will take, by compelling them to go to bed at some regular, early hour, and to rise in the morning the moment they awake; and, within a fortnight, nature, with almost the regularity of the rising sun, will unloose the bonds of sleep the moment enough repose has been secured for the wants of the system.

This is the only safe and sufficient rule—and as to the question how much sleep any one requires, each must be a rule for himself—great nature will never fail to write it out to the observer under the regulations just given.—Dr. Spicer.

*For the New England Farmer.*

#### CHOLERA.

MR. EDITOR:—As you have occasionally published articles on dietetics and the means of preserving health, and as I consider experimental knowledge preferable to theoretical, I thought I would relate a concise history of my own case which recently took place. In the month of July last I was prostrated for a few days with a short fever, and when I got about again my appetite continued poor, till the 16th of August, at 8 P. M., when, to my wonderment, for the first time in my life, I was suddenly attacked with the cholera, and experienced every variety of symptom concomitant with that disease, from the ejections up and down to the cramp and cold sweats. Being unable to swallow the least particle of anything, I took nothing for eighteen hours, not even an anodyne; the only application made to me was a chunk of hot marble to my feet and a plenty of blankets at the time of the cold sweats and spasms. Thinking that probably my last hour had arrived, unless I had sufficient vitality remaining, with the help of the blankets and marble, to produce reaction, I began to realize an abatement of the agonies of the cold and cramps, which gradually subsided, and were followed by warm sweating. My distress continued seven or eight hours. This is experimental knowledge.

Now for theoretical prescriptions. I have been amused beyond measure, since my recovery, at reading the sage advice of the author of a publication called the "London Practice of Physic for the use of young Practitioners." After describing the symptoms of the cholera with the wisdom of Esculapius, he advises the young practitioners to the following course of treatment: "Chicken-broth should be freely drank to the quantity of six or eight quarts, and as fast as possible; milk and warm water, new churned buttermilk, decoctions of rice and barley, &c."

Now in the name of common sense what man, sick or well, could survive such an administration of the bounties of Providence. I wish the author a chance to follow his own prescriptions and see if it would not change his opinion in giving advice to young physicians. Medical writers who will give such absurd instructions to young physicians ought to be punished for their stupidity and rashness. I fully believe if I had forced down one pint of chicken-broth or buttermilk, it would have been my last attempt at taking medicine.

I fully concur with Prof. Holmes in his sentiments delivered in his discourse at the last annual meeting of the members of the Massachusetts Medical Society. For more than forty years I have been persuaded that medicine, as it is used, does more hurt than good, and unless medicine can be used with more discretion, the world would be better off if it were all cast into Etna's crater.

SILAS BROWN.

*North Wilmington, Sept. 15, 1860.*

THE USE OF QUAILS.—Wm. Norton, an intelligent, observing farmer boy, who makes his home in the southern part of Illinois, has recently been studying the habits of the quail, or incorrectly, "partridge," and gives the following testimony to the Cincinnati Artisan: He observed a small flock

commencing at one side of the field, taking about five rows, following them regularly through the field, scratching and picking about every hill, till they came to the other side of the field; then taking another five rows on their return, thus continuing till he thought they were certainly pulling up the corn. He shot one, and then proceeded to examine the corn ground. On all the ground that they had been over, he found but one stalk of corn disturbed; that was scratched nearly out of the ground, but the kernel was still attached to the stalk. In the crop of the quail, he found but one cut worm, 21 striped vine bugs, 100 chintz bugs, that still retained their individuality, a mass apparently consisting of hundreds of chintz bugs, but not one kernel of corn."

#### WATER CISTERNS.

Every farm establishment should be provided with a capacious and conveniently located water cistern. If the farm buildings are numerous and compactly situated, a very small expenditure will answer for the construction of all the apparatus requisite for conducting the water from the roofs into the reservoir, which, for greater convenience, should be located in some place where it may supply the wants of the animals in the yards during winter, as well as the household.

The convenience and value of such an arrangement will be particularly obvious during seasons of protracted drought, or accidents from fire. In the latter emergency, where recourse is had to ordinary wells, too much time is expended in drawing or pumping, especially when the fountain is at a considerable distance below the surface; but a cistern being situated more superficially, with regard to its contents, is at all times within immediate reach, and may be made to pour forth its treasures at a moment's warning. By furnishing troughs where the water is required, a system of pipes will be found highly convenient, as through them the water may be conveyed, in any quantity, and at all times, to the yards or places required.

Good and substantial reservoirs, perfectly water tight, may be formed of split stone, brick, plank, or even without either, the interior surface as well as the bottom being covered with two or three coatings of cement. We have known them made by cementing directly upon the earth, but in our climate of penetrating frosts, such would not be the best way. They may be made square, oval or round; but made in the form of an egg, they are very strong, and require no "deck" or top covering, as the opening in the top may be only a little larger than a man's body, so that he can enter it occasionally to clean it out.

In a cistern constructed in this manner, the water will soon become clear and fit for family use, if the roofs of the buildings upon which it falls are kept ordinarily clean. Where there is

a good cistern at, or near the house, there is a feeling of safety and comfort, which one can scarcely have without it, and these pleasurable emotions are considerably heightened by the fact that it is an economical arrangement for supplying water. But the cistern has another recommendation of more value than either of these, viz: It provides the women with those indispensable conveniences, without which we do not believe a good, genial temper and a pervading harmony can long exist in the household. Men build their fine barns, purchase their mowing machines, newly-modeled plows, &c., and too often leave the women to go ten rods and draw water with an old creaking sweep from a forty foot well, or allow them to chop the wood with which to cook the breakfast, or keep the children warm. Nothing tends more to good order and serenity of temper in the house, and the comfort and economy of all its affairs, than the existence of the numberless and nameless little conveniences which enable each one to perform his or her part of the household duties with facility and ease—and among them all, none is more important than a *plenty of pure soft water, near at hand.*

#### FACTS FOR FARMERS.

If you invest money in tools, and then leave them exposed to the weather, it is the same as loaning money to a spendthrift without security—a dead loss in both cases.

If you invest money in books, and never read them, it is the same as putting your money into a bank, but never drawing either principal or interest.

If you invest money in fine stock, and do not feed and protect them, and properly care for them, it is the same as dressing your wife in silk to do kitchen work.

If you invest your money in choice fruits, and do not guard and give them a chance to grow and prove their value, it is the same as putting a good hand into the field with poor tools to work with.

If you invest your money in a good farm, and do not cultivate it well, it is the same as marrying a good wife, and so abusing and enslaving her as to crush her energies and break her heart.

If you invest your money in a fine house, and do not so cultivate your mind and taste as to adorn it with intelligence and refinement, it is as if you were to wear broadcloth and a silk hat to mill.

If you invest your money in fine clothes and do not wear them with dignity and ease, it is as if a plowman were to sit at a jeweler's table to make and adjust hair springs.

If you invest your money in strong drink, it is the same as turning hungry hogs into a growing corn field—ruin will follow in both cases.

If you invest your money in every new wonder that flaming circulars proclaim, it is the same as buying tickets at a lottery office where there are ten blanks to one prize.

If you invest your money in the "last novel," it is the same as employing a tailor's dandy to dig your potatoes.—*Valley Farmer.*

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY THE N. E. FARMER, SEPT., 1860.

*Page 394.—Colic in Horses.*—In this article, quoted from the *Farmer's Advocate*, there are two or three things partly stated, and partly implied, which are unquestionably erroneous, and quite likely to lead some of the readers thereof into a wrong, and perhaps a destructive course of treatment. First of all, it is implied that *all* cases of colic in the horse are of the same nature exactly, or produced in the same way; and secondly, it is partly stated and partly implied that *all* cases of colic may, or should be treated in the same way. Now, it seems to require but a very little knowledge or even common sense, as to such complaints, to make one well assured that neither of these opinions or medical dogmas is either sound or reliable. Then, too, almost every one who has much experience with horses has met with positive facts which are utterly at variance with these dogmas or opinions. Every such person has found that some horses are much more liable to colic, than others which have been fed and treated in exactly the same way. In such animals, there must be weakness or disease of the stomach, or other digestive organs, which creates, or constitutes a predisposition to colicky attacks; and such attacks, when they do occur, ought to be considered and treated as much more dependent on some disease or debility of the digestive organs, than on the nature of the food or drink given to these animals, or than on the mode in which they may have been driven or managed. Such cases, and some others which might be named, if treated with discrimination, or good judgment, will be treated differently from those more common cases in which the attack of colic is produced wholly by the irritating or indigestible nature of the food or drink which may have been administered. But, unfortunately, such discrimination is but rarely to be met with, and it is because it would contribute to save animals from much unnecessary suffering, and their owners from occasional losses of valuable animals, that we have thought it worth while to point out these two errors of the indiscriminating, and to endeavor to leave the impression on the readers of this, that, to treat any disease correctly, intelligently, or successfully, the producing cause or causes should always be ascertained, if possible, and the mode of treatment be modified by and adapted to the peculiarities of the producing cause.

Leaving these remarks of a general nature, as germs of thought, to be developed and applied by those qualified or habituated to such intellectual operations, we will draw our observations to a close by one remark of a particular nature. For the reasons already specified, and for others which seem not above the comprehension of plain common sense, the mode of treatment recommended in the article under notice, cannot, by men of sense, and should not by any one, be accepted as applicable or likely to be useful in all cases. In fact, there can be but a few cases of colic which are exactly like the one mentioned in the article under notice, and of course but a few in which the like treatment would be applicable. Few horses have that amount of fever accompanying colic, which would make a wet bed-comforter steam like

a pot boiling, as is said of that applied to the horse under notice. For a horse having such an amount of fever and heat on the surface as to cause such steaming, a wet blanket might be, at least, a safe application; but in a large number of cases there is no fever, and no increase of heat on the surface at all, and in many cases, a tendency to chilliness and withdrawal of the blood and natural heat from the surface, and in all such cases, both common sense and experience testify that wet applications only increase the evil, or run the risk of it, and are, therefore, neither safe nor salutary.

Suppose a case such as we had during a wet summer. One horse sllobbered so excessively as to make several streams on the stable floor every night. During this time of sllobbering, the horse had two or more slight attacks of colic, and at last a very severe one. The cause in this case was obviously the flashy, watery condition of the pasture, and imperfect digestion from the loss of so much saliva, with depression of all the vital energies. Now, in such a case, would a man of any sense apply a wet blanket, or would he not rather try to relieve the colic of a horse in such circumstances, by giving a drench containing caraway seeds, ginger, and perhaps other stimulating condiments? We leave the reader to decide for himself. If he is not given to riding hydropathic or other hobbies, we should be glad to have his views upon the treatment of colic in such a case as we have briefly reported. In that case, half a teacupful of caraway seeds bruised, and given in a strongly spiced tea of ginger, allspice and pepper, and repeated in from five to ten minutes, was soon followed by entire cessations of the colicky attack, which was a most severe one.

*Page 406.—Superphosphate for Turnips.*—There are advantages, we have no doubt, to be derived from reporting cases of failure, when some particular manure, mode of management, new plant, or new implement, has been experimented with fairly and judiciously, and in such a way as to render the results reliable, and of value for either scientific, or practical purposes. But are there not disadvantages also? There are, at least, dangers of disadvantage, if not carefully guarded against, as is evident from this report by Mr. M. PRATT. The reader is left without any means of determining, with certainty, to what cause the reported failure was chiefly owing, whether to Coe's superphosphate, or to superphosphates of whatever kind, or to the dryness of the season, or to something else; being thus left uncertain as to the cause of the failure in the crop, he is, of course, unable to decide what he must do, or avoid doing in order to escape a similar failure. And not only is the reader left in the dark as to what he must avoid if he would escape a similar failure, but he is left exposed to the danger of making two inferences which might be of disadvantage or damage to himself, or Mr. COE. If the reader should suppose the failure owing to the particular superphosphate used, he might thus have fallen into an injurious mistake; and if he should infer that superphosphates generally are not suitable for the turnip crop, that would also be a great mistake, and one which might be of disadvantage to himself, if it should prevent him from availing himself of the aid of superphosphates, and other phosphates of lime, in raising turnip

crops. A reader not acquainted with the abundant testimony furnished by English turnip-growers to the great value of the various phosphates of lime in the culture of that crop, might possibly come to the conclusion that Mr. PRATT's failure was owing to the use of the superphosphate, and that superphosphates were not a suitable fertilizer for a turnip crop. This would be a great mistake, and might be of great disadvantage to any one who adopted it, for it is well known to those acquainted with British agriculture, that phosphate of lime, either in the form of bone meal, or of a genuine superphosphate is almost universally used in the culture of turnips, and that it always, (that is, with scarcely an exception,) causes an increase of several tons of bulbs per acre over and above what can be raised on the same soil in the same circumstances without phosphates in some form.

As Mr. PRATT, we are sure, knows all about the special adaptation of phosphates for increasing the acreable yield of turnips, he could not mean to lead his readers into doubt in regard to this well established fact or truth, merely because of a failure in a single crop, and that in a very dry season. But it may be better, now that we have indicated some of the suppositions or guesses as to his meaning which readers may make, to leave Mr. PRATT to make his meaning less liable to misinterpretation, if he should think it of any importance so to do.

MORE ANON.

P. S.—If Mr. PRATT or any one else could tell us how to detect fraudulent bone dust and superphosphates, he would confer a real benefit on many of his brother-farmers. Prof. S. W. JOHNSON's report is good, but not enough for this purpose.

#### PULVERIZING THE SOIL.

The effects of pulverizing or stirring the soil are numerous.

1. It gives free scope to the roots of vegetables, and they become more fibrous in a loose than in a hard soil, by which the mouths or pores become more numerous, and such food as is in the soil has a better chance of being sought after and taken up by them.
2. It admits the atmospheric air to the spongioles of the roots—without which no plant can make a healthy growth.
3. It increases the capillary attraction or sponge-like property of soils, by which their humidity is rendered more uniform; and in a hot season it increases the deposit of dew, and admits it to the roots.
4. It increases the temperature of the soil in the spring, by admitting the warm air and tepid rain.
5. It increases the supply of organic food. The atmosphere contains carbonic acid, ammonia and nitric acid—all most powerful fertilizers and solvents. A loose soil attracts and condenses them. Rain and dew, also, contain them. And when these fertilizing gases are carried into the soil by rain-water, they are absorbed and retained by the soil for the use of plants. On the other hand, if the soil is hard, the water runs off the surface, and instead of leaving these gases in the soil, carries off some of the best portions of the soil with it. Thus, what might be a benefit becomes an injury.



6. By means of pulverization, a portion of the atmospheric air is buried in the soil, and it is supposed that ammonia and nitric acid are formed by mutual decomposition of this air and the moisture of the soil, heat also being evolved by the changes.

7. Pulverization of the surface of soils serves to retain the moisture in the subsoil, and to prevent it from being penetrated by heat from a warmer as well as from radiating its heat to a colder atmosphere than itself. These effects are produced by the porosity of the pulverized stratum, which acts as a mulch, especially on heavy soils.

8. Pulverization, also, as the combined effect of several of the preceding causes, accelerates the decomposition of the organic matter in the soil, and the disintegration of the mineral matter; and thus prepares the inert matter of the soil for assimilation by the plants.—*Gen. Farmer.*

#### WHAT IT AMOUNTS TO.

Various journals are engaged in the difficult task of estimating the amount and value of the wheat crop of the country, which is now all harvested. However different the estimates may be, it is generally conceded that the wheat crop of this country has been a large one, and that there will be a considerable overplus for exportation to meet the demand now made for it in Europe. Taking 1858-59 as the basis of a calculation, and the wheat crop is assumed to be equal to 229,000,000 bushels against 201,000,000 in 1859, and 159,000,000 in 1858. The production by States is given as follows: Pennsylvania, 25,000,000 bushels; New York, 25,000,000; Virginia and North Carolina, 18,000,000; Kentucky, 9,000,000; Ohio, 28,000,000; Indiana, 19,000,000; Illinois, 25,000,000; other States, 80,000,000. The surplus is estimated at 61,000,000. In addition to this, it is supposed that from one-sixth to one-fifth of the surplus crop of last year is yet in the hands of producers, giving a total surplus for export of 67,000,000 bushels. The crop in Wisconsin, which, in the foregoing figures is put down at 18,000,000 bushels, is reported to be fully 30,000,000. This, doubtless, is somewhat exaggerated, but the abundance of the crop may be inferred from the fact that men, women and children, doctors, lawyers and ministers were in the fields harvesting, and that the work was even performed by moonlight. Taking all the crops of the country, it is thought to be within bounds to put the value of our staples this year at two thousand millions of dollars, or about sixty-six dollars for each person.—*Philadelphia Ledger.*

**BARRELS FOR FRUIT.**—Everything in contact with fruit should be clean and sweet, and the vessel in which it is placed should be dry and tight. Old flour barrels should not be used, unless well washed and dried, as the particles of flour left in the barrel will mould and impart to the fruit an unpleasant odor and flavor. Old lime barrels, it is said, are excellent for this purpose—the lime absorbing the vapor and gases. If this is so, a little fresh slaked lime scattered on the bottom, sides and top of the barrel, would be beneficial.—*Genesee Farmer.*

#### A HARVEST SONG.

The toll of day is ended,  
The night is at her noon,  
And the harvest song swells blithely up  
Beneath the harvest moon;  
Then tread a quicker measure,  
And chant a louder strain;  
With a dance and song, the days prolong,  
That bring the golden grain.

From out the distant mountain  
Comes the voice of the cascade,  
And the nearer gleam of its silver stream  
Makes glad the silent glade;  
Through all the shadowy forest  
Is heard the fall of leaves—  
And the timid hare treads stealthily  
Among the nodding sheaves.

And now, on every hillside,  
The purple vintage glows;  
As when a deeper radiance falls  
From daylight at its close;  
No time is it for sadness,  
Despondency or fear,  
When autumn comes in gladness,  
To crown the fruitful year.

Dear is the pleasant leaf-time,  
When all is soft around—  
When frost-imprisoned rivulets  
Are melting into sound.  
And dear, too, is the season  
When spring and summer meet;  
When the woods are faint with odors,  
And the hills are dim with heat.

But spring is but for pastime,  
And summer but for show;  
While autumn, like a crowned king,  
Has riches to bestow;  
So he shall be the monarch  
Of all the shining year,  
And a crown shall wear, and a sceptre bear,  
Of fruits, and the golden ear.

#### PRIZES FOR AGRICULTURAL REPORTS.

With the view of inducing the officers of Agricultural Societies to collect and embody in their annual reports more information of a character which will be valuable and interesting, than has heretofore been the case, the Board of Agriculture of Upper Canada have offered four premiums, amounting to \$75 dollars, for the four best County Agricultural Society Reports; and four premiums, amounting to \$50, for the four best Township Society Reports.

We consider this an excellent movement. Some societies in New England publish in the beginning of the year a pamphlet of premiums to be paid at the Fall Exhibition, with a glowing account of arrangements for plowing, drawing and trotting matches, the name of some far-brought orator, with many other specifications of the attractions of the promised jubilee, but for want of funds, or other reasons, make no other statement of their year's proceedings and doings than an imperfect newspaper report. Others publish in pamphlet form a bare statement, sometimes with and sometimes without the Address, of the award



of premiums. In our opinion there is little practical good resulting from such management. The mere fact that 90 bushels of corn, a big ox, a grand cow for milk, a large pumpkin, or any other vegetable, animal or implement, were exhibited and took premiums on a certain day, is very unsatisfactory to most minds. They wish to know not only what the best farmers produce, but how they do it.

For such information our Canadian neighbors offer handsome premiums; and we hope the managers of our own societies will continue their efforts to give to their yearly transactions greater practical value.

*For the New England Farmer.*

#### A FARMER'S DAUGHTER ON FARMING.

MR. BROWN:—I have had the pleasure to-night of reading the able production of your friend "Anna," entitled "Farmers' Wives and Daughters." My youth and insufficient education might present a reasonable barrier to discussion, yet permit me, through your gallantry, to break silence for once, even at the expense of exposure. Anna says, she may safely say, that, "it is not a well-established fact that farmers' wives are the most hard-working class in existence." This is contradiction, and in good humor I beg leave to return the same compliment. There are exceptions, to be sure, and 'tis possible I am not prepared to judge of farming in Massachusetts, but I am prepared to judge of farming in New Hampshire.

She asks,—*"Is there not as much intelligence and refinement in a farmer's family, as in a mechanic's?"*

Naturally, there is, but if farming is so very profitable as some of the *Farmer* correspondents contend it is, it would afford the means of presenting to the world a class of people paramount in the cultivation of intellect to that of mechanics. If a larger proportion of our present teachers are from farmers' families, it is only in the country, and there a larger proportion of the inhabitants are farmers, a fact which shows they are not elevated above toil, (as they surely ought not to be,) but are compelled to depend upon their own resources, while their mother or sister is obliged to preside in the kitchen.

If any courageous girl *can* acquire a good education independent of public institutions, there are few who can unlock the deep mysteries of science in solitude, and without the aid of teachers. The rudiments of science, necessary though they be, are not sufficient for a gifted mind. No, we want woman educated, thoroughly educated, in all that can enlighten and eternalize the mighty mind.

Committing Latin lessons while "turning a churn crank or frying pancakes," seems to me a difficult and dry task, and I should prefer to make the butter and pancakes at one time, and have the profits of the farm augment father's purse enough to secure assistance while I learned my Latin lesson at another time. Suppose there is "less real poverty among farmers than among mechanics;" all the world are not mechanics, and how many men of wealth are there among farmers who have acquired affluence by simply farming? No per-

son of ordinary abilities, with health, need suffer in this age for the necessities of life, let him be in whatever occupation he may.

The question in regard to the young lady mentioned was not asked, Mr. Editor, expecting you to decide her fate, for she is one who decides her own fate, and has already done so by very recently marrying, neither a farmer nor a fourth-rate lawyer. The question was asked, as Young America said, "To see what you would say," regarding your opinion of consequence, of course.

My friend seems of the opinion that we should be content without pictures upon the walls. If we can be, that is well, but I think she cannot deny but what pictures are useful, and render a home pleasant. Visit the palaces of the Old World, its picture galleries, its long corridors ornamented with paintings, the productions of the richest genius, and one cannot but be awed in admiration. Visit them in imagination, if no more, and you cannot fail to admire. But in our homes, the sacred centre of our affections, there place the works of art. Irving says: in America, literature and the elegant arts must grow up side by side with the coarser plants of daily necessity. For instance, suspend upon your wall Christ on the Cross, and think you not, that fair-haired boy will discern a living reality which cannot be painted in words? Yes, as the Son of man, with agonized features, looks upon him so beseechingly, it *must* penetrate his little heart, and with flowing tears and generous sympathy, it will plant a principle to blossom in manhood.

My Massachusetts sister has a view from her window, "such as no human artists could form." True, and I have a view from my window, too. Below, the Mascoma valley, lovely in the extreme, sprinkled with thriving villages, giving evidence that here are intelligent mechanics and merchants as well as farmers. Beyond, lie the Mascoma and Crystal lakes, their polished surfaces a mirror of Heaven's own beauty; while all around in their terrible grandeur and sublimity, rise the eternal hills and mountains from the Green, the boast of Vermont, to Mount Washington, the pride of the old Granite State. 'Tis a picturesque scenery, glorious to behold, beautiful beyond expression. And I want time to admire its loveliness, time to forget the world, and care, and profit, in the dreamland of nature. Does a farmer's wife possess this time? The daughter may—but does the mother?

In summer, we boast of all that is beautiful in the "Switzerland of America." In winter, though we miss the multitudes, music, and the drama, yet there is a magic in the huge snow drifts that gather about our doors, a romance in the impenetrable fort which old Boreas stations between us and our next neighbor. Often, too, when favored with a north-easter, the subsequent sunshine is duly appreciated, and as the naked trees are mantled in their transparent verdure of ice, and they dance and glitter and tremble in the sunlight and breeze, it seems as if the sepulchre of the seasons proclaims both great and living truths infinitely real. Indeed, Anna made a great mistake when she thought we found not sunshine in rural life, for there is sunshine in any spot where not over-taxed with care. If she will visit me in my mountain home I will assure her I can romp with her as well as any farmer's daughter, climb stone

walls, ride a spirited pony, manufacture all the music she wishes on the wash-board or old-fashioned spinning-wheel, or anything else outside of the piano. These are characteristics of the farmer's daughter.

I regret to have shocked the mirthful sensibilities of my friend by "striking so mournful a strain," but am glad she comes forth in so lively a style. Contrast is bewitching oftentimes, and calls out a true view of the reality. Let us look at farming as it is. It is, *ipso facto*, a pleasant occupation, laborious, independent, and honest. The farmer can say *honi soit qui mal y pense*, for he himself need think no evil. But profitable enough to secure wealth unconnected with other business, I think it is not. He who is blest with strong muscles and a contempt for the scrabbling, money-making world, is best adapted to this occupation.

POLLY.

Enfield Centre, N. H., 1860.

For the New England Farmer.

#### WINTER AND SPRING WHEAT.

MR. EDITOR:—I am most happy to hear of another wheat-grower, R. H. Simmons, Esq., of Hartford, Vt. His success with spring wheat presents a wonderful amount of encouragement to farmers. This is the right source and the kind of information so much needed by your yeomanry. It is to be hoped the columns of your well directed paper will teem with it, and that many farmers even less fortunate than Mr. S. will also give an account of their stewardship.

But I must say a word in defence of winter in preference to spring wheat, fearing your correspondent, Mr. S., has not made a fair trial. He thinks "twenty-five per cent." more of spring wheat can be raised to the acre than of winter wheat, in the region where he resides. Of this I have my doubts, unless some new varieties have come to hand with which I am not familiar. My experience covered the years from 1845 to 1851. On strong land where I got good winter grain the spring would rust and mildew, and could not survive the dog-days without damage. Year after year the same fatality pervaded Massachusetts. Occasionally a farmer would succeed. He felt no confidence.

All the poor, dark flour comes from spring wheat, the best and whitest from winter—this I think is proverbially true. Now, if Mr. S. will try another year to get his wheat in the 25th of August, two to three inches deep, so as to give it root to guard against winter-kill, taking the same pains as with his spring crop, he will doubtless get as heavy a yield, and grain of far better quality. It matures two to three weeks earlier, and is likely to escape the hazards of dog-days.

As a matter of prudence, every farmer among you should have his spring and winter patch. If he fails in one, he may secure the other; one year gives him this double advantage for a crop. Providence has made wonderful provision for the farmer, most surely—now will he reject or accept the terms? Bread is the home question.

Brooklyn, L. I., Sept. 10.

H. POOR.

P. S. The crop of Mr. Simmons, 217 bushels from 7 acres, is equal to 54 bbls. of flour in value for the farmer.

#### EXTRACTS AND REPLIES.

##### WILD TURNIP.

I wish to inquire through the *Farmer* how wild turnips can be eradicated from a field? If it cannot be done, how much will they lessen the value per acre? Will they do any damage while the field is in grass? *Indian Orchard, Sept. 20.* C. W.

REMARKS.—Go through the field as often as you find any in blossom, and pull it out by the roots. This is our practice, and it succeeds. The wild turnip is a robber, always injurious to the crops, and ought not to be allowed among them.

##### TOMATO KETCHUP.

I like your paper—in fact, I prefer a farmer's paper, at any time, before a trashy story paper, so I buy the *Farmer*; couldn't keep house without it—although not a farmer—hope I shall be one before many years. But what I want now is, to have you tell me or find some correspondent to, how to make tomato ketchup. It is no use to see my own tomatoes rot in the yard and buy my ketchup. I can make a kind that won't keep, but I want to find out how to make a good kind that will keep.

A MECHANIC.

Cambridge, 1860.

REMARKS.—We gave two recipes, which our women folks pronounce good, in last week's paper.

##### A GOOD YIELD OF BARLEY.

My father raised this year, from one acre of land, forty-one and a half bushels of barley. The land is a strong, deep loam, and after a thorough and careful cultivation for three years, the above crop was realized.

W. H. SAVAGE.

REMARKS.—We are glad to learn that the barley crop is receiving more attention than it formerly had. We think it worth more, per bushel, for several uses than corn meal. Nothing equals it when ground into meal, for feeding to calves that are being reared by hand. So it is excellent for hogs, sheep and hens. The flour, also, makes excellent bread.

##### SOIL FOR PEAR TREES.

I have about an acre of ground on the south-east bank of a river, where I wish to plant pear trees. Will you, or some of your correspondents, inform me how the soil should be prepared? Also, where trees can be obtained of the best variety. *B. SAUNDERS.*

Nashua, N. H., 1860.

REMARKS.—Drain the soil in the first place, if it is wet; then trench it, or at least spade it a foot deep, manure and pulverize well, and set the trees. Stir the surface frequently, and never allow a weed to grow. Cultivate corn or garden stuff among them, but manure liberally every year.

##### RAPID DECAY OF SHINGLES.

There is much complaint at the present day that shingles decay very soon when placed upon the roof. Will you, or some of your readers, inform us through your columns whether subjecting them to a high temperature of heat before laid, say as high as the temperature of a baker's oven when they bake biscuit, or perhaps higher, will prevent their decaying so soon, and give them more durability when made use of? If so, it will be of great use to the community at large.

Derry, Sept. 18, 1860.

A SUBSCRIBER.

REMARKS.—We have had no experience in the matter. Would not soaking them in a solution of the sulphate of zinc make them very durable? That will preserve posts set in the ground for a long time.

##### IMPROVEMENT OF SHEEP FOR WOOL.

In answer to Mr. Doane I would advise him to cross with full blood Spanish merino, and let the buck to the sheep as early as the first of November.

Harrisville, N. H., Sept. 12, 1860.

C. BARKER.

*For the New England Farmer.*

### SWAMPS AND MEADOWS.

Although the "theme of my discourse" may seem an uninteresting one to some who may glance at the heading of this article, yet if there are

"Sermons in stones,  
Books in running brooks, and good in everything,"

why is it not possible to derive a little benefit from an investigation, however slight, of old swamps and bog meadows. Certainly great good is already being realized from these natural reservoirs of fertility, in the form of muck for the compost heap, and peat for fuel.

As the soil of New England is comparatively poor and unproductive, unless much skillful labor is expended upon it, the all-wise Creator has, without doubt, formed these rich deposits of vegetable matter to supply in part, if man will but make use of it, this want of fertility. Future generations will appreciate much better than the present one does, the inestimable value, to the farmer, of these lands, which were once considered almost worthless. But aside from their material value, I wish to speak more particularly of these places as subjects for curiosity and geological research.

Innumerable swamps and muck meadows are scattered throughout New England. Some are situated upon the margins of ponds, lakes and rivers, others, frequently of large extent, have only a small brook running through them; and others of smaller area are entirely surrounded by unbroken ranges of hills, having no visible outlet or inlet. Those which border upon the shores of the Atlantic, are denominated salt marshes, and doubtless, differ somewhat in their formation from those lying inland, but I have never had an opportunity to examine them particularly.

Adjoining the farm where I reside, and partly upon it, there is a swamp containing about fifty acres. It has a brook running through it, which is fed by springs around the margin of the swamp, and empties into a pond near by. The swamp is covered by a growth of white, and pitch pine, American larch or tamarack, maple, spruce, and white birch. Some of the trees are more than a foot in diameter. There is a tradition that a hundred and fifty, or two hundred years ago, this swamp was a smooth meadow, covered with grass, which was all cut for fodder, as good English hay, in those times, was very scarce, so far back into the wilderness as Groton, (if it had, at that time, an English name,) was then considered to be.

While digging muck in this swamp, I have made some discoveries, which, although not so curious and important as some geologists have made, yet, perhaps, are worthy of mention. At different depths, varying from one to five feet, I have found stumps of pine and larch in the position in which they grew. Some of these stumps must have been nearly two feet in diameter; and I have frequently found one large stump directly above another, with marks of fire upon their bark and roots. There were, also, and generally below the stumps, the remains of the leaves and stalks of flags. Sometimes the trunk of a large tree would be found lying across the line of the ditch, with its heart quite hard and sound.

From these facts, I should conclude that a long

time ago, the swamp was several feet lower than at present, and that it was sometimes covered with flags and grass, and sometimes with trees of a much larger growth than those which are now growing upon it, and, from finding bits of coal, charred stumps, &c., that it has several times been burned over. There seems to be an accumulation of water under this bed of muck and peat, for after the ditch has been dug to the depth of five or six feet, the bottom will very frequently rise up, and bursting open, the water will rush through, and fill the ditch in a few minutes.

There is a deep basin, or "bog-hole," near this swamp, called the "punch bowl," from its resemblance in form to that bowl which is so alluring and fatal to many. It is about fifteen rods in diameter, and entirely surrounded by a ridge of gravelly hills, or, as the geologist would probably say, altered drift, or *esars*, which vary in height, from twenty-five to forty feet. This basin is filled to an unknown depth, with the usual deposit of muck, and its surface, except a small, open space nearly in its centre, is covered by a growth of moss, bushes and trees, of the same kinds that grow upon the swamp, except that there is no pine. About twelve years since, the open space in its centre was covered with water, and a pokerish looking place it was, too, at certain times. Standing upon the rim of the "bowl," in a sunny day, the beholder could see, that what appeared to be the bottom of the miniature lake, was of a light green color, with the exception of two jet black holes of a circular form, and eight or ten feet in diameter. When I was a boy, the sight of these—to me, unfathomable holes—would almost make me shudder.

But the march of improvement has altered the face and stomach (if the expression is allowable,) of this ugly bog very much, for I have this year picked several bushels of cranberries over those same holes of which I had such a dread in boyhood. But the thin covering of cranberry roots and vines is a very shaky concern, (like some political platforms of the present day,) and at first, I was somewhat afraid that, after all, one of these horrid openings would swallow me up in its black abyss. The cause of this great change lies in the simple fact that a railroad has been built almost directly through the middle of the "bowl." An outlet has thus been made for its stagnant waters, and the gravel, of which an immense amount was dumped into it, has pressed the muck more compactly together, making the surface a little higher and dryer; and the cranberry vines have spontaneously spread themselves over the open space left by the waters.

In my explorations in muck beds, I have not yet discovered an elephant, but it is possible that I may, for it is only a few years since that the remains of one were found in Vermont, beneath a deep bed of muck. In the same part of New England, the skeleton of a small whale has also been found imbedded in the blue clay, a deposit made long before the vegetable deposit commenced.

It would be interesting to know the length of time which has elapsed since these swamps and meadows began to form, but that is a point which is—like many others in the world's history—very difficult to decide upon. Many thousands, and perhaps millions of years ago, according to geol-

ogy, these valleys and hollows, now filled with decayed vegetable matter, were submerged by the waters of the ocean. It is thought by eminent geologists, that, at a very remote period in the earth's history, the level of the sea on the coasts of America was more than fifteen hundred feet higher than it is at the present time!

This continent must then have consisted of only a few large islands. At another, the drift period, the ocean was several hundred feet lower than its present level. At still another, the pleistocene period, the sea remained for a long time four hundred feet above its present bounds, and has gradually been receding from the land, or the land emerging from the ocean, until the present time. During the period last mentioned, New England and New Brunswick constituted a large island. This was separated from the main land of New York by a strait, which extended from the valley of the St. Lawrence, through the valley of Lake Champlain, of the Champlain Canal, and of the Hudson River. The summit level of the canal indicates the most shallow part of this strait, which had a depth of about 125 feet. The western part of Vermont was thickly studded with small islands in a tranquil sound. The exterior portions of the New England States, and extensive districts in the middle States, constituted a beautiful archipelago of small and picturesque islands."

Perhaps it was during this period, that in old Massachusetts, reptiles of the frog kind attained the respectable size of an ox; and biped toads outgrew the elephant! Many of the rounded hills, gravelly ridges and bowl-shaped cavities of New England are doubtless the effects of marine agency.

As the land slowly emerged from the ocean, the valleys and hollows which had no outlet, and were not fed by springs, were left full of water, which evaporated after a time, leaving more or less rich alluvial matter, upon which a luxuriant vegetation soon began to grow, and with its decay, the muck and peat formation commenced. In those valleys which had an outlet, the muck deposit doubtless commenced in the same manner, but probably a little sooner. Ponds, fed by springs, or brooks, are, in many instances, being encroached upon by the swamps and marshes around their margins; and, ages hence, if the process goes on, will be entirely filled up.

The muck and peat formation has evidently been going on during many thousands of years, the surface gradually rising and gaining upon the upland, but where the end will be, is hidden in the unknown future. Those swamps which are thickly covered by a growth of moss, bushes and trees, must of course gain much faster than smooth meadows which annually yield a crop of hay.

I cannot close without referring to the beautiful appearance which these swamps present to the eye during the month of September. While I am writing, the swamp I have described, is decked with a robe of brighter hues, if possible, than those of the rainbow. Some of the maples are bright scarlet, others are crimson and purple, and some are golden yellow. The larches are brownish yellow. These bright colors, with all their different shades and combinations, form a beautiful contrast with the dark green spruce and the lighter shades of the larches and pines. From the hills surrounding this swamp, one can be-

hold a scene surpassing in beauty the most exquisite piece of Mosaic work. The green upland woods form a picturesque background to this garden of nature. Passing through New England at this season of the year, the traveller will behold hundreds of these magnificent views. In October, the foliage of the upland forests is also changed, as if by magic, to the same gorgeous tints, and then the whole landscape presents a scene of resplendent beauty.

S. L. WHITE.

Groton, Sept. 25, 1860.

#### THE OLD YANKEE FARMER.

[A homely old ballad, brought to mind by the coming anniversary of the County Fair.]

Here's health to the Farmer who lives on the land,  
Made the best and the richest on earth by his hand:  
You may search the wide earth, but there's naught to be seen  
That can rival the true Yankee Farmer, I ween.

What life is so happy? He's up with the sun—  
He hears the day's poetry sweetly begun  
By the lark and the cuckoo, the swallow and merle,  
And sees the green lawn all bespangled with pearl!

While sluggards in cities, 'mid tumult and strife,  
Lose all the best part of this quick fading life,  
He quaffs Hebe's cup at Aurora's first ray,  
And lives twice as long as they do every day!

He rules every station, from castle to cot;  
He's neither by noble nor peasant forgot;  
The peer and the plowman together agree  
That the farmer should never want company.

Look round you—what treasures his riches unfold!  
His granaries filled with those sheaves of bright gold!  
His pens and his pastures all breathing with life,  
And his home far away from all passion and strife!

Then, a health to the Farmer who lives on the land  
Made the best and the richest on earth by his hand:  
You may roam the wide world, but there's naught to be seen  
That can rival the true Yankee Farmer, I ween!

*For the New England Farmer.*

#### CULTURE OF CABBAGES.

Although bred a farmer, and taking a deep interest in everything which relates to farming, practical, or theoretical, I have yet to acknowledge that I am one of the unfortunates who do not possess a farm. A single half acre of land is all I have on which to expend my little wealth of sinews and manure. And even on this small pittance of space, I have not always been successful with my crops. For instance, I consider a garden without cabbages as a thing far more out of love with propriety than "a church without a bishop," or a Nessus without a shirt. And yet my land having been many years under cultivation, like other "old land" (as it is technically termed) has obstinately refused, until the present season, to grow cabbages. In 1859 I sat out three dozen plants, and not one of them "came to a head." All were afflicted with "club feet," wilted away and died. Having seen a notice in the *Farmer*, a year or two since, that unleached wood ashes, placed in the hill, and directly in contact with the plant at the time of setting it out, had proved a remedy against the disease here indicated, I was induced last spring to try the experiment. I placed about half a pint of good wood ashes in each hill, mingling a portion with the soil, but

taking care to let the ashes, nearly pure, come in contact with the roots of the plants. The experiment, I am happy to say, has proved entirely successful. Every one of the plants has grown to a thrifty cabbage, and not one has exhibited any indications of disease.

If such is the effect of wood ashes upon one plant, why not upon others? The "club foot" is undoubtedly caused by an insect which bites the root of the plant; and if thus rendered "innocuous," why cannot the grub that destroys the cucumber, the marrow squash, and other vines, be disposed of in the same way? I think the increased growth of plants treated in this way, will amply repay the cost of experimenting; for my garden, in its palmiest days, never produced handsomer cabbages than those of the present season's growth.

E. C. P.

Somerville.

### MECHANICS' FAIR.

#### A DAY AMONG THE AGRICULTURAL IMPLEMENTS AND MACHINERY.

So far as we have been able to judge by several visits to the ninth exhibition of the Massachusetts Charitable Mechanic Association, and by a cursory examination of the articles generally, and a careful inspection of those belonging to the *agricultural* department, we came to the conclusion that no previous exhibition has equalled this in regard to the number of articles presented, or in the ingenuity of new inventions, or in the style and excellence of their construction.

In the section appropriated to agriculture, we found some one hundred articles devised and constructed for the special use of the farmer, and they comprised many of the most useful labor-saving implements used upon the farm and in the farm-house, and many of the specimens of machinery that are happily influencing the industry and prosperity of the country.

The observing person cannot have failed to notice how much the farmer has been aided by the introduction of improved implements and machinery in the prosecution of his labors,—and taking the broad fields of the west into the account, it is not extravagant to say that those labors have produced more than double what they ever have before, through their agency. "Plows turn up the soil deeper, more evenly and perfectly, and with greater ease of draught; hoes and spades have become lighter and more efficient; grain, instead of being beaten out by the slow and laborious process of the flail, is now showered in torrents from the thrashing machine; horse-rakes accomplish singly the work of many men using the old hand rake; twelve to twenty acres of ripe grain are neatly cut in one day with a two-horse reaper;" the large hand or "loafer-rake," light and cheap seed-sowers—wheat hoes and weeder with which one man can perform in the same time as much service as can five men with a com-

mon hoe—mowing machines, hay-caps, grain cradles—lighter, and yet stronger and better, rakes, pitch-forks, manure-forks, fanning-mills, straw-cutters, root-slicers, pumps, and especially new implements for aiding in the process of draining lands—one of the most profitable operations of the farm, and now introduced as a system of the first importance—which reduce the cost of products nearly one-half from that required twenty years ago, are now common on most well-conducted farms. The balance, or fly-wheel, in equalizing the motion of machinery used by farmers, is annually saving a vast expenditure of human power, and that saving may fairly be carried to the credit side of their account.

As a farmer, we find pleasure in acknowledging our indebtedness to the genius of the mechanic in devising and constructing the improved implements and machinery which so greatly lessen our toil, facilitate our labors, and at the same time increase our profits. We believe in progress, and that it is better to balance the grain in the bag that is thrown across the back of the horse than to put a stone in one end of it; that it is better to lessen the friction of the drag by using wheels, and that these principles hold good in most of the tools and machines used on the farm. We believe that farming is the natural pursuit of man; that it is healthful, profitable and honorable, and that as its labors have been guided more by intelligence, and as improved means and modes of husbandry have been introduced, the farmer has assumed a higher rank, and has become more and more influential in every department of the business of men.

As these means and modes have progressed, they have furnished the farmer with the ability to surround his home with the comforts and elegancies of life. When, fatigued with the labors of the day, he returns to his home and family, he no longer sits upon the hard, awkward, old-fashioned white pine "settle," or upon bare floors, in uncomfortable, straight-backed chairs which scarcely relieve the pressure of out-door toil. Instead of this he finds chairs, sofas or lounges fitted to receive the weary form and restore it to a vigorous condition. His floors are covered with cheap and substantial carpets, economical in a money point of view, and yet comfortable if not luxurious. The glare of rooms is softened by blinds, while a world of woman work is avoided by the occasional coats of paint which their wood-work receives. His cooking-stove saves him ten cords of wood annually, while his food is better prepared, and with less labor, than under the open fire-place processes. He has a carriage, too, of modern construction, to ride to town-meeting, or to church on Sunday, and really is a stronger and better citizen in possessing these things, and

for the fifty dollars which he has in his pocket when voting on town-meeting day for a member of the General Court, or for a President of the United States!

These improvements are mainly effected through a knowledge of mechanical principles, and no association, in our opinion, seems so well calculated as this of which we are speaking, to increase that knowledge, and to produce results that will avert or ameliorate human toil, and ennoble and dignify mankind.

It has been estimated by Mr. J. J. Thomas, the careful writer whom we have already quoted, that "the capital for furnishing the farms in the Union with implements and machinery in the best manner would amount to five hundred millions of dollars, (500,000,000,) and as much more is estimated to be yearly paid for the labor of men and horses throughout the country at large. To increase the effective force of labor only one-fifth would, therefore, add annually one hundred millions of dollars, (\$100,000,000,) in the aggregate to the profits of farming."

The axiom of Lord Bacon, that "Knowledge is Power," is not more applicable to any department of human industry, than it is to that part of the late Exhibition which relates to farm implements and machinery; for so long as Agriculture underlies all other Arts, and affords the basis of all enterprise and profit, so long will an increased knowledge of its wants have a direct influence upon the wealth and prosperity of the nation.

The Ninth Exhibition is an honor to the Association, to the inventors and manufacturers of the articles exhibited, and reflects credit upon the taste, intelligence and progress of the people who have sustained it.

**BARN ITCH.**—This disorder is a troublesome and unsightly difficulty, and one which is very liable to run through a herd of cattle to the serious detriment of the appearance of the stock. The remedy is a very simple one, and, as we are informed by Paoli Lathrop, Esq., of Hadley Falls, Mass., a very efficacious one. Take a cob and rub the affected part until the surface is smooth, and then apply grease as an emollient. The same remedy is always efficient for the scratches in horses, unless the disease proceeds from some general disorder in the system of the animal, in which case other and more efficient means must be used.

**NEUTRALIZING POISON.**—A poison of any conceivable description and degree of potency, which has been intentionally or accidentally swallowed, may be rendered almost instantly harmless by simply swallowing two gills of sweet oil. An individual with a strong constitution may take nearly twice the quantity. This oil will most positively neutralize every form of vegetable, animal or mineral poison with which physicians and chemists are acquainted.

*For the New England Farmer.*

#### NORFOLK AGRICULTURAL FAIR.

The Norfolk Agricultural Society held its twelfth annual Fair on Thursday and Friday last. As usual, the attendance was large, and the arrangements admirable. My impression of the fair, is that, as a whole, it did not sustain the reputation of the society so well as several fairs previously held. In some respects, however, I shall modify this remark, as I proceed. No premiums for cattle had been offered, in consequence of the general apprehension of the cattle disease, at the time when the list of premiums was arranged, and no cattle, therefore, were present to compete for them. Some fine animals, however, were here on exhibition, among which the Kerry stock and Shetland heifer, belonging to Arthur W. Austin, Esq., of West Roxbury, the Jamestown stock, owned chiefly in Dedham, and the Ayrshire bull, owned by E. W. Andrews, Esq., of West Roxbury, were particularly noticeable, and attracted much attention. For the general purposes of a farm, I am inclined to believe that no animals superior to the Ayrshire bull and the Jamestown progeny are to be found in the county. The other stock, belonging to Mr. Austin, is of recent importation, and its peculiar excellence remains to be proved. It indicates, thus far, great hardiness of constitution and peculiar adaptation to our climate and pasturage. It has a small and compact form, well set limbs, a soft, glossy hide and a golden skin. It is remarkably gentle and docile, feeds quietly, and yields rich milk in larger quantity than its size would authorize us to expect. I shall watch its progress with much interest, and may reasonably look, I think, for great benefit to the farmers of the county from the introduction of it into their vicinity.

The show of horses has never been equalled in the history of the society. I make this remark on the authority of qualified and experienced judges, my own knowledge in this department being extremely meagre. I could not but notice, however, that the celebrated Balrownie, belonging to Mr. Shaw, of West Roxbury, was the observed of all observers, and have no doubt that he merited the attention he received. Other fine animals, also, excited the admiration of skilful judges. In swine, the exhibitions of this society have formerly been particularly full and good. Only a few specimens were now presented, but these were of much excellence. Of poultry, ducks and geese, there was more than the usual display. Some golden pheasants, beautiful swans and foreign geese attracted universal attention.

In the house, the chief interest centered in the fruit. The apples, pears and grapes were unrivalled. Besides all the common varieties of apples, I noticed, for the first time here, some beautiful Newtown pippins, in the judgment of many, the very prince of apples. To those who know Norfolk county, it is hardly necessary to say that the pears and grapes were in great abundance, and of the finest quality.

The display of garden vegetables was good, but small. I was surprised at this, because the proximity to a good market and the almost uniformly high price of vegetables cause great quantities to be raised in this county. So of corn and potatoes, —the show was extremely limited. A few speci-

mens of great excellence were exhibited—but the farmers do not seem to have felt their usual interest in this, which is really the essential part of the Fair. I know that throughout the county the corn and potato fields were seldom more productive, and yet this department of agricultural produce was not largely represented. The farmers failed to do themselves justice. Several specimens of good spring wheat and one of oats were offered; but none of rye or barley—crops of which have been uncommonly large and fine.

Domestic bread was abundant and of great excellence. It will be a memorable and happy day for the farmers when their wives and daughters shall entirely discard saleratus and soda,—as the regulations of this society require, and supply their families with wholesome, and well-made bread. Butter, also, was more abundant than I have ever seen here before, and of equal excellence with that of any previous exhibition. I was particularly pleased to observe the department of agricultural implements, presenting many specimens of the best construction and greatest utility. Labor-saving machines for domestic use, and carriages, for travel and for work, were among the noticeable articles here.

In the department of fancy and needle work, in which the ladies of Norfolk have always excelled, there was much that attracted and merited attention.

An extensive and beautiful exhibition of the more commonly cultivated flowers graced a large table in the centre of the hall. Of rare flowers and hot-house plants, none were exhibited.

Like thousands of others, I was gratified by the Fair. Yet it was plain that the interest of the occasion depended too much on the exertions and contributions of a very limited number of persons, and that the great body of Norfolk farmers were not, as they should have been, represented by the productions of their farms. Many of the farmers were indeed there, but the evidences of their well-known knowledge and skill were absent. I regret this the more, because the fact is well established that the influence of this society upon the agriculture of the county has been eminently and extensively beneficial.

Of the merits of the address by G. S. HILLARD, Esq., of Boston, it would be superfluous to speak. Every one expected much, and I am sure that none could have been disappointed. Similiar remarks are also applicable to the speeches of Judge MARSTON, the delegate of the Board of Agriculture, and of President FELTON, of Harvard University. Such distinguished scholars and orators can make no better use of their abilities and learning than thus to aid the all-essential art of agriculture.

OBSERVER.

**KEEPING APPLES.**—It is well known, says the *Working Farmer*, that apples keep longer after having parted with a portion of the water they contain. When first taken from the tree, if laid in a heap eighteen inches in depth, and covered with a light cloth, or a little straw, they will soon sweat; when this operation has succeeded fairly, the cover, or straw should be taken off, the windows opened, and the apples suffered to dry as suddenly as possible. By this operation they will lose five or six per cent. of weight, and if packed in barrels and shipped, arriving at their port of

destination before a second sweating shall occur, they will be all sound, unless bruised in the packing or carriage. If dried immediately after the second sweating, instead of being left closely packed while damp, they are again prepared for a still longer voyage before decay will occur. Those who ship apples to Europe are well aware of these facts, and use the necessary preventive against decay.

#### GOSHEN CHEESE.

From an article on the manufacture of cheese, in the *Ohio Farmer*, we extract the following paragraphs on the celebrated Goshen cheese:

There are towns in rocky, bleak New England, realizing annually more profit from cheeses, whether estimated per acre, per cow, or per pound, than most western towns where the land is far handsomer and apparently more favorable every way for the service of a dairy. We may take, for example, Berkshire county, Mass., and Litchfield county, Conn., which lie contiguous to each other, and belong to that broken, rocky, mountainous region, which extends northward to the valley of the St. Lawrence. We shall encounter facts like the following. The town of Goshen, in extent about nine miles by five, and not less than a third of this barren rock, or swamp, will exhibit an annual exportation of cheese ranging from a million and a quarter to a million and a half pounds. All this brings, in the best markets, from one to three cents per pound above the price of ordinary western cheese. It ought, however, to be said here, that Goshen being the favorite name in market, so far as this region of country is concerned, (and that probably through the influence of some enterprising cheese merchants of the last generation,) the cheese-makers who reside near the borders yet within the adjacent towns on every side, as Winchester, Torrington, Canaan, Cornwall and Norfolk, quite generally prefer to sell by way of Goshen, and in this way, of course, swell somewhat the gross amount which passes through the hands of the Goshen merchants, receiving their brand.

There are in this region a considerable number of manufacturers who keep few or no cows themselves, but buy the curds of the neighboring farmers. It is a curious fact, those farmers, or farmers' wives, (for the mistress of the house always "runs the curd,") who know how to get the greatest number of pounds of curd from a given number of quarts of milk, are also those who receive the highest price by the pound for their curds; that is to say, the greater the amount of curd that can be obtained from a given amount of milk, the better will be the curd or the quality of the cheese that is made from it. And this difference in amount, under the management of the various curd-makers, is considerable—enough to astonish those who have no actual acquaintance with the matter. It is said sometimes to equal a fourth of the whole amount.

Flavor—the great point in cheese-making—is here carefully attended to. The farmers, however, contend that there is something unusually delicious in the grasses of these mountainous counties of New England, from the Sound to the St. Lawrence; especially do they claim a freedom



from bitter and nauseous weeds in the pastures. But, after all, we believe that the delicacy of flavor in these New England cheeses is, for the greatest part, owing to the scrupulous neatness and nicety with which they are treated throughout the whole process of making, together with a precise, judicious and skilful, but indescribable seasoning of the curds. Perhaps we ought to add, as an indirect cause, that the largest and best cheese-makers have this for their whole business. They do almost nothing else. To this art and its process they devote the study of their lives.

*For the New England Farmer.*

### THE BIRDS OF NEW ENGLAND—No. 3.

#### FALCONS.

Fish Hawk, or Osprey—Jer Falcon—Wandering Falcon—Sparrow Hawk—Pigeon Hawk—Merlin.

With the celebrated OSPREY, or FISH HAWK, (*Pandion Carolinensis*, Bonap.; *P. haliaetus*, Sav.) a bird so familiar to the inhabitants residing along our sea-coast and the shores of our lakes and larger rivers, will be concluded the history of the *Aquilina*, or Eagles. This truly majestic bird is so closely allied to the famed Osprey of the eastern continent (*Pandion haliaetus*) that it was formerly confounded with it, until the exact researches of C. L. Bonaparte, Prince of Musignano, showed them to be distinct, he distinguishing the present species as the American Fish Hawk, (*P. Carolinensis*, as above.) Though found in summer inhabiting from Hudson's Bay to Florida, it generally returns, according to Audubon, beyond the limits of the United States in winter; and its reappearance along our shores as spring opens is said to be hailed with pleasure by all, and particularly by the fishermen, as it indicates the return of those finny tribes that minister to the sustenance of both; and the noble character of this bird renders him offensive to none, while his graceful form and majestic flight, as well as his interesting habits, commend him to our regard. Wilson, who was a poet of no mean abilities, as well as a naturalist, thus finely describes its arrival:

"Soon as the sun, great ruler of the year,  
Bends to our northern climes his bright career,  
And from the caves of Ocean calls from sleep  
The finny shoals, and myriads of the deep;  
When freezing tempests back to Greenland ride,  
And equal hours the day and night divide;  
True to the season, o'er our sea-beat shore,  
The sailing OSPREY high is seen to soar  
With broad, unmoving wing; and, circling slow,  
Marks each loose straggler in the deep below,  
Sweeps down like lightning! plunges with a roar!  
And bears his struggling victim to the shore."

The Fish Hawks are generally seen along our whole New England sea-coast in spring, a few breeding there, and along our larger rivers; they are frequently seen in this vicinity (Springfield, Mass.) in April, and are probably common around the lakes of northern New England. Preying wholly upon fish, it never molests the property of the farmer; and differing from most of the rapacious birds in its somewhat social habits, is frequently seen in large companies. They often build in societies, three hundred nests containing young having been counted on a small island near the eastern point of Long Island, while Wilson speaks of seeing twenty in a distance of half a mile, and Audubon mentions of meeting with fif-

ty in a day's excursion. The nest is a large structure, placed in trees, and composed of large sticks, mullein and corn-stalks, dry grass, &c., forming a mass; it is said, sufficient to fill a cart, and visible at half a mile's distance; and it is generally occupied for several years. The common Crow Blackbirds (*Quiscalus versicolor*) are sometimes permitted to build in the interstices of the Fish Hawk's eyry, "like humble vassals," as Wilson observes, "around the castle of their chief, laying, hatching their young, and living together in mutual harmony;" yet they possess courage, and often combine against their powerful oppressors, the Bald Eagles, and drive them from their precincts.

The Fish Hawk measures twenty-two inches in length, and sixty-three in alar extent; upper part of the head, white; general color of the plumage above dark brown; below, white.

Entering the sub-family *Falconina* (true, or proper Falcons) the typical group among the *Falconidae*, we meet with birds of less size and strength, but characterized by great courage, swiftness of flight, and expertness in the chase, often exceeding the Eagles in these points; and in the ancient days of falconry were highly prized in the royal sports.

The JER FALCON, or GYR FALCON, (*Falco Islandicus*, Lath.) is one of the largest and noblest, and probably the most celebrated of the birds used in falconry, its size being near that of the Osprey, and its intrepidity exceeded by none, it boldly attacking the largest birds, as Storks, Cranes and Herons. Its native haunts are the cold, arctic regions of Europe and America, Iceland having always been one of its favorite retreats, while a few are met with along the precipitous coasts of Norway, Sweden and Greenland. Richardson observed it occasionally at Hudson's Bay; Audubon discovered its nest on the desolate coast of Labrador; Nuttall remarks that a few pairs are sometimes seen in Massachusetts in winter, which is all that entitles it to a rank in the list of our New England birds. Plumage mostly white.

The WANDERING FALCON, GREAT FOOTED HAWK, or DUCK HAWK, (*Falco peregrinus*, Linn.) is hardly less celebrated for feats of daring than his noted congener just described, but is rather less in size, yet almost equally famed in falconry. This species is common to both continents, if, indeed, it be everywhere the same, which Bonaparte declares is not the case, he accordingly characterizing the present species as distinct from the European, under the name *Falco anatum*.—Duck Hawk; while Audubon found no difference between those he examined in England and the ones he had killed in America. They are everywhere noted for strength and boldness, and their feats of daring are regarded with wonder by the sportsmen along our coasts. In Europe they are said to be found chiefly in the mountainous districts, seldom descending to the plains, and avoiding marshy districts; while in America they are most common along the sea-coast of the Atlantic States, and in the vicinity of lakes and the larger rivers, where the various aquatic birds abound, which furnish them with food,—a difference in habit hardly reconcilable, regarding the bird as identical in the two countries. This formidable Hawk, known generally as the *Duck Hawk*, *Hem*

*Hawk, Chicken Hawk, &c.*, pounces upon his quarry with great velocity and force, striking it while in the air, on the ground, or floating on the surface of the water, with almost equal facility; in the former case striking his victim to the ground with his powerful talons, and returning, picks it up and bears it away. It occasionally displays its audacity in snatching up the Duck killed by the sportsman, approaching boldly even within thirty paces of the hunter who shot it; and in return the sportsman is sometimes fortunate in securing the game struck down by this Hawk. The Duck Hawk is said to breed in trees, retiring to the dark recesses of the gloomy, almost inaccessible cedar swamps to build its eyry, "where," observes Mr. Ord, "the wild screams of this bird, occasionally mingled with the hoarse tones of the Heron, and the hootings of the Great Horned Owl, echoing through the dreary solitude, arouse in the imagination all the imagery of desolation."

The SPARROW HAWK, (*Falco sparverius*, Linn.,) the smallest of our New England Hawks, is found, according to DeKay, inhabiting the American continent from 54° south latitude to the same degree of north, and is quite common in the warmer parts of the United States; but Nuttall remarks that it is rare in the maritime parts of New England, but it is generally seen in most parts of the Eastern States throughout the year, though not common. Small birds, quadrupeds and reptiles constitute its chief prey, though young chickens from the farmyard are always acceptable; and it occasionally partakes of grasshoppers and other insects. In flight and manner of hunting, it differs considerably from the Falcons above described; it flying irregularly, and occasionally hovering over a particular spot for a minute, as though watching some object beneath it; and at times will watch from a tree-top for a long time for the appearance of mice, or other game. It will sometimes approach a group of small birds with a low and stealthy, but rapid flight, pounce upon one with the rapidity of lightning, and away with it in an instant, striking with terror the remainder of the group at the suddenness of the unlooked for attack.

This Hawk measures ten or eleven inches in length, and about twenty-three in extent; upper parts reddish bay, with seven black spots around the head; under parts, pale yellowish white, with longitudinal spots of brown. Nests in hollow trees, laying four to six brownish eggs.

The PIGEON HAWK, (*Falco columbarius*, Linn.,) a little larger than the preceding, and less numerous, is occasionally seen in New England, more commonly in autumn and winter, it retiring far to the north in summer to incubate. Its nest has been discovered at Hudson's Bay, placed in hollow rocks, or decayed trees, composed of sticks and grass, and lined with feathers; eggs two to four, white, thinly dotted with red spots. From its swiftness of flight it is sometimes known as the *Bullet Hawk*; and Audubon mentions that "the daring spirit which it displays exceeds that of any other Hawk of its size;" and adds that he has known them to attack birds in cages suspended against the walls of buildings in the very streets of our cities! It pounces without hesitancy upon Robins, Blackbirds, Sparrows, &c., and even Wild Pigeons, thus proving a serious annoyance to the pigooner.

LE PETIT CAPORAL, or LITTLE CORPORAL HAWK of Audubon, (*Falco tenebrius*,) described by him as a new species, is now supposed to be the adult Pigeon Hawk.

The MERLIN, (*Falco aesalon*, Will.,) a spirited Falcon, not uncommon in Europe, is occasionally met with in the northern parts of this continent, but occurs in New England as a rather rare accidental straggler. It is characterized by the same daring spirit of those already described, and in the "olden days of falconry" was highly prized for the chase.

J. A. A.

#### OIL FOR BOOTS AND HARNESS.

Some practice and a deal of reasoning from analogy has proved that the very best oil for all applications to leather is the common castor oil, (from the bean of the Palma Christa plant,) and identical with that with which careful mothers sometimes nauseate their children. One of the reasons of its value is that it has less affinity for water than any other oil, and less tendency to harden or thicken the leather, as neatfoot and other animal oils do. Leather that has been frequently saturated with any kind of animal fat and exposed to water, as boots and harness are, instead of remaining pliable, becomes hard and dry, losing its elasticity, and finally becoming brittle and worthless; but that which is oiled with the extract of the Palma Christa bean, and in a less degree with flaxseed oil, appears to retain its fibrous toughness a great deal longer. The oil is naturally viscid, containing some glutinous matter, which serves a better purpose than animal oil to exclude the water which, when absorbed in leather, is the real cause of its non-elasticity.

Castor oil, if bought by the gallon, is not expensive. It was manufactured a few years ago in Illinois and sold at fifty cents a gallon, and the beans were grown as a field crop at fifty cents a bushel. It is well worth the while of farmers to give castor oil a trial as a lubricator of leather.

For the New England Farmer.

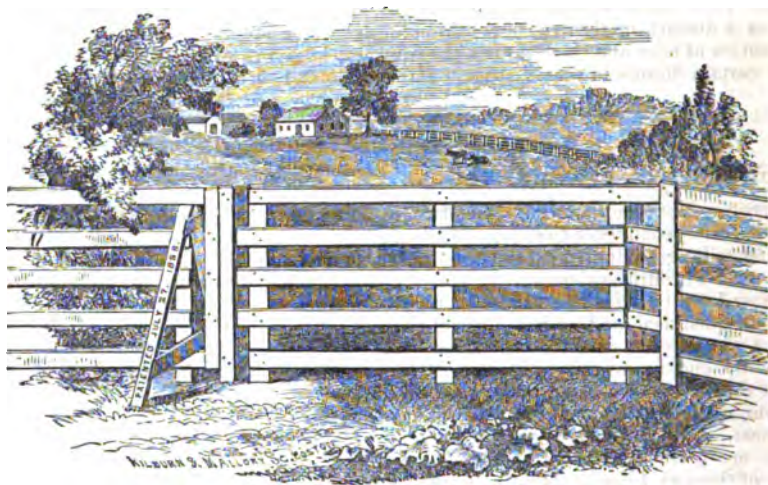
#### COPPER SOLED SHOES.

MR. EDITOR:—Some months since, I wrote a short notice for your paper in praise of copper soled shoes as a substitute for rubbers. It followed a short editorial notice to the same purport. But experience has not confirmed those views; they do not prove as valuable as we hoped.

I was reminded of this notice by reading the following in the *Boston Recorder* of May 11th, 1822: "Three persons in Sussex, England, have lately lost their lives by wearing sheet copper in the soles of their shoes, to keep the feet dry. When the inner soles give way, the perspiration of the feet, acting upon the copper, communicates to the system an active and dangerous poison."

While on the subject of shoes, I would remark that a physician of Portland (Me.) has been making the anatomy of the human foot a special study with regard to making a shoe which shall be better adapted to it than the present fashion. We all know that a shoe has but little semblance to the foot. We wish the doctor success.

Springfield, Vt., Sept. 12, 1860. A. E. P.



### SELF-FASTENING PORTABLE FENCE.

Before entering upon a description of this fence it is proper for us to say to the reader that we have not used it, or seen it in use, and judge of it merely from its appearance, as the model, some six or eight feet in length, stands before us. From this view, however, we do not doubt but the fence will be a good-looking, cheap, and effective one, and feel no hesitation in recommending a trial of it by those who need wood fences. The fence is called by the inventor, "*Vandemark's Self-Fastening, or Hook and Eye Portable Fence*," and he makes the following statement in relation to it:

The observing farmer will readily perceive the numerous advantages of a Portable Fence which can be easily *put up, taken down and removed* from place to place, as convenience may require.

The panels constructed upon the plan of this patent will make either a Worm, Straight, Square or Circular Fence. Note also the following facts.

1st. It can be made in bad weather or in winter, when farm hands are commonly idle.

2d. The fence being all above ground, will last without repair twice as long as a post and board fence.

3d. It is all made of inch boards, and so simple in its construction that any farmer can make it with a hand-saw and hammer.

4th. The same panel will make either a straight or zigzag fence, a square or circular enclosure. When straight, it is supported by a triangular brace put in between the end battens or uprights, as shown in the above cut, and made of the same material as the fence.

It is advisable to use 10 feet rails, 5 inches wide by 1 inch thick. 1,000 feet of lumber will

build 27 rods of this fence, which will make the material—

Where lumber is \$3.00 per M.	cost 29 cents per rod.
" " 10.00 "	" 36 " "
" " 12.00 "	" 43 " "
" " 14.00 "	" 50 " "
" " 16.00 "	" 57 " "
" " 18.00 "	" 64 " "

With lumber at \$12 per M., and posts at 13 cents each, there will be a saving of \$8 on every 20 rods of this fence.

The triangular brace shown above and spoken of under the 4th head, may be dispensed with and a couple of stakes used by driving one end slightly into the ground and sawing a notch in the other and sliding it under one of the boards. We intend to put it in use in the spring on our farm, where those interested can see it if they wish to.

### BEEES AND CATS.

From experiments which I have tried, I have found that the visits of humble bees, if not indispensable, are at least beneficial to the fertilization of our clover, (*Trifolium pratense*), as other bees cannot reach the nectar. Hence I have very little doubt that if the whole genus of humble bees became extinct or very rare in England, the heart-case and red clover would become very rare, or wholly disappear. The number of humble bees in any district depends in a great degree upon the number of field mice, which destroy their combs and nests; and Mr. H. Newman, who has long attended to the habits of humble bees, believes "that more than two-thirds of them are thus destroyed all over England." Now the number of mice is largely dependent, as every one knows, on the number of cats; and Mr. Newman says, "Near villages and small towns I have found the nests of humble bees more numerous than else-

where, which I attribute to the number of cats that destroy the mice." Hence it is quite creditable that the presence of a feline animal in large numbers in a district might determine, through the intervention of mice and then of bees, the frequency of certain flowers in that district.—*Darwin.*

*For the New England Farmer.*

#### BORROWING AND LENDING TOOLS.

MR. EDITOR:—I have noticed that some of your subscribers, having confidence that you are full of wisdom, and willing to impart to the ignorant, when they meet with difficulties come to you for advice. Now I want advice in a matter that has annoyed me a good deal, and wish you would tell me, and the rest of your readers, what is proper to be done by one in my circumstances. The case is just this: I am a farmer, owning a pretty good farm, with neighbors all around me in the same business. I am in the habit of being neighborly with my brother farmers, borrowing various tools of them as I happened to want them. For instance, I have borrowed a corn-speller of one man, and because I happened to forget or neglect to carry it home again, and he had to come for it a week or two after, he appeared to be really disturbed in mind about it. So, also, when I borrowed a seed-sower of another, and he came for it a month afterwards, he really looked as if he had a good mind to be so unneighborly as to make me pay for his trouble in hunting it up. Of another, (an odd chap who jocularly calls himself so poor that he cannot afford to borrow,) I borrowed a jack-screw to use in fixing my barn. Before I was ready to carry it home, the wrench somehow got broken; and then I waited till I could take it to the blacksmith and have it mended—and finally forgot it. But after a month or two the owner one day came for it, in some excitement, said he had spent most of the forenoon in looking for the screw among his nearest neighbors, having at first forgotten to whom it was lent; and ended by saying that he expected me to pay him twenty-five cents for his trouble in coming for it. As I am an *economical* man, and he knew it, I thought this particularly unkind. When I told him the wrench was broken, and said he might get it mended and I would pay the blacksmith's charge for it, I really believe he wanted to *swear*; but he didn't do it; he merely said, in a cool and impudent way, that he "thought it rather a hard case, after he had spent a half day in hunting for his tools, to be asked to spend more time in running to the blacksmith's to get them mended!" So you see by what a churlish set of neighbors I am surrounded.

Now, Mr. Editor, as you know just how I am treated, I wish you would talk right sharply to these men, and show them how to be neighborly. I do not own all the tools I want to use, and so I *must* borrow; and I cannot be expected always to remember to return them at a precise minute. It is not natural. Pray help me, if you can, and so oblige,

JONATHAN DOOLITTLE.

*Slackville, Aug. 11, 1860.*

VALUE OF SEWAGE.—If we ask the opinions of different persons on the question of "sewage,"

we receive contradictory answers. All manufacturers of superphosphate of lime are quite agreed on the point, that only the fluid portions of sewage water are valuable in agriculture. They do not, in giving this opinion, deny the good effect of solid matters, but only mean to say that they are not worth the trouble of being collected for manure, because they are ready to deliver from their manufactories these matters to agriculturists. The manufacturers of ammonia-salts, and the dealers in guano, take an entirely opposite view. These hold that only the solid sewage matters are to be looked upon as important. There can, however, be no doubt that both the fluid and solid matters are valuable for agriculture.—*Liebig's Lectures.*

*For the New England Farmer.*

#### TOWN FAIR IN NORTH READING.

An agricultural fair was held in this place Oct. 2, under the auspices of the *North Reading Farmers' and Mechanics' Club*, and proved a decided success. No cattle were exhibited, but the display of fruit, flowers and vegetables was unusually fine, and the contributions of the ladies in the shape of embroidery, worsted work, paintings, etc., showed, most conclusively, that the ladies of the place, at least, are fully up to the times.

Gentlemen who were present, and who have also attended some of the County Fairs, were forced to acknowledge, that, although the quantity was less, the quality of the contributions was even superior to that of the greater shows.

If you, Mr. Editor, had not positively forbidden correspondents to enter into details, it would give me much pleasure to enumerate some contributors worthy of especial honor; as it is, I cannot refrain from mentioning the name of Aaron S. Hewes, Esq., of North Reading. His display of apples, it is universally acknowledged, was by far the best, and we, "of this ilk," believe them unsurpassed. Mr. H., though a manufacturer, is far more of a farmer than some who make farming their profession.

G. F. FLINT.

*North Reading, Oct. 4, 1860.*

REMARKS.—Thank you for the notice of your Town Show, and also for mentioning particular cases that are specially meritorious. This is what is wanted,—but not a dull detail of one or two hundred premiums.

PRESERVATION OF FRUIT.—Some time last spring, Mr. LEWIS H. SPEAR called at this office, and showed us samples of fruit put up without being cooked. Some of it had been prepared for several months, and still retained the flavor of ripe fruit when first gathered. The samples of apples were very beautiful, although they had been put up for several months, were open to the air, and were neither cooked, or in a rich syrup. Several weeks ago, currants and berries were put up in our family by this method, and they retain all their original freshness of flavor, though their color is somewhat changed. The process is very cheap and simple.

## A DAY ON TWO FARMS.

*Rochester, Mass., Oct. 4, 1860.*

GENTLEMEN:—I came here yesterday, by request, to look at a couple of farms; that is, to hold a consultation over them with their proprietors, something as physicians do over a sick patient.

The first farm looked at, is the property of CHARLES H. LEONARD, Esq., and consists of some two or three hundred acres, about eighty acres of which he has already reclaimed, or is engaged in reclaiming—the other portion is principally in wood. Mr. L. is a New York merchant, but being born upon this soil, and having passed his boyhood here, is expending a portion of his ample fortune in bringing the estate into an attractive and fertile condition. His object has been up to this time to clear the land of stumps and rocks, surround it with stone fences, lay permanent roads, underdrain and level, rather than to fertilize and secure crops. Within five years, an immense labor of this sort has been performed, and substantial buildings erected. Two hundred and fifty rods of split stone wall has been laid, some of it over ditches filled with stones, and intended as drains, and the balance laid upon small stones in trenches. The walls are four and a half feet high, three feet wide at the bottom and eighteen inches at the top, and built thoroughly in straight lines, or in graceful curves, as the nature of their location required. The material used is granite, composed mainly of quartz, black mica and feldspar.

The rocks were mostly found beneath the surface, were dug about, split with wedges, taken out, and the places they occupied, filled with the smaller stones turned out in plowing. This process results in a pretty thorough trenching of a considerable portion of the fields, so that where the work was first completed, and the land seeded to grass, they have secured an average crop of three tons per acre of the best clover and Timothy hay. Some of the land treated in the same manner was in corn, and I found it a finer crop than any I have seen this autumn—one small piece must yield, I think, at the rate of a hundred bushels to the acre. Some splendid ears are now before me of the King Philip variety, and are ten, eleven and twelve inches long. Mr. Leonard's fine green-house, mill-pond, lawns, and many things relating to the farm, are examples of energy, and a progressive spirit, that are creditable to his good taste, and cannot fail to inspire others to profit by them. They may not enter so extensively into improvements as he has done, but his thorough-draining, and following crop of three tons of hay per acre year after year, is only an example that any of his neighbors may follow, that possess the progressive spirit to prompt them to it. In this operation, there is no fancy to be in-

dulged, but it is one of plain dollars and cents calculation, which will probably add ten to twenty per cent. to the value of the crops taken off. The proprietor of this estate is fortunate in committing the details of its management to the skill and intelligence of Mr. JOSEPH COE.

My next visit was to an adjoining farm belonging to the gentleman just named, but who has only recently come into possession, and does not yet reside upon it. It includes one hundred acres of variable soil, and has always been managed in the old routine of corn, rye, pasture, for a few years, where there was nothing to be eaten, and then corn and rye again.

Mr. Coe's principal object is the culture of cranberries, and he has already commenced the construction of a reservoir for water, whereby he will be able to flow his cranberry meadows whenever frost is anticipated, or when the plants are attacked by insects. His contrivances are ingenious, will not be expensive, and we think will be effective. He will also enter upon a system of tile drainage, which, conducted by his intelligence and skill, must afford a good example to all around him. At some future day, I hope to see his cranberry meadows in their prime. He had just made a visit to the Cape to examine the modes of cranberry culture there, and had learned several important facts which are interesting and valuable.

Mr. Coe is a skillful, intelligent and progressive farmer; does not think he knows so much as never to ask a question; believes a great deal in books, but not *all* that is said in them; closely observes the practices of others; and is as willing to impart his own knowledge, as to draw it out of others. Very truly yours,

SIMON BROWN.

Messrs. NOURSE, EATON &amp; TOLMAN.

## CULTIVATING PEACH TREES.

The peach formerly succeeded nearly as well in southern New England as in the middle States. Old people tell of the large crops of fine peaches that were common in their youth, and say that the trees were then thrifty and free from disease. But all this is changed now. A healthy peach tree is the exception, disease the rule, and of course it is useless to expect a good crop of fruit from unhealthy trees.

There has been much speculation as to the cause of this decadence of the peach. Some, notwithstanding the negative evidence of meteorological tables, attribute it to a change in the climate; others to the unnatural method of propagation by budding, and others to the ravages of worms and insects. But whatever the cause, the fact is patent to all, and probably the most that can be done by human means will be merely a mitigation of the evil.

As far as the writer's experience goes, it is decidedly against cultivating the ground beneath peach trees. Those in his garden that were under cultivation, have been exceedingly short-lived,

while others, closely surrounded by green sward, and set out at the same time, are still in bearing order and tolerably healthy. A neighbor some years since set out an orchard of about a hundred peach trees, cultivating corn and root crops between. Most of the trees died within three or four years from the setting, and scarcely a dozen remain at the present time. When the trunks are closely surrounded by grass, they are seldom attacked by the borer. It would be interesting and profitable to know what the experience of others has been in regard to the cultivation or non-cultivation of the peach.—*Taunton Republican*.

*For the New England Farmer.*

#### FARMERS' WIVES AND DAUGHTERS.

Most humbly would I plead pardon of Sister Polly, for being so impolite as to contradict her, yet so thoroughly convinced am I of the fact that the labor of the farmer's wife and daughter is no more severe than that of other ladies, that I must still persist in my statement. I am not prepared to judge of farming in New Hampshire, but would only speak of it as it is in Massachusetts. The experience of a farmer's daughter only is mine. But I have the testimony of one who has been a farmer's wife for thirty-five years—who has brought up a large family, and who *ought to know*. Truly, there are many hours of severe toil; yet she has had leisure for improving the mind, and "extending her knowledge beyond the limits of her native village," and has kept her heart open to the "sweet influences" of nature.

My sisters have all married mechanics, and, observing their daily tasks, I prefer my own. But, as Polly says, "all the world are not mechanics." Would she be ready to exchange tasks with any minister's wife of her acquaintance? And why the work of a lawyer's, or doctor's, or merchant's wife, (aside from the dairy work, which occupies but a small portion of the day,) should be less arduous than that of a farmer's wife, I cannot understand. The same amount of cooking must be done, washing and ironing; dust is "no respecter of person" or occupation; doctors and lawyers are liable to forget the scraper and mat at the door, and to leave hat, coat and boots for wife or daughter to put in place. Doctors' and lawyers' children as mercilessly leave dirty little finger-marks upon the windows and paint, and are as diligent in tearing rents in aprons and pants, as farmers' children.

I think Polly is inclined to consider wealth and happiness as inseparable. One, of olden time, reputed wise, prayed, "Give me neither poverty nor riches." This is the situation of most farmers, neither in poverty, nor possessing great riches. Enough for comfort and luxury. And this may be gained, "unconnected with other business," although the farmer commence life deeply in debt.

A word concerning self-education. No one need be satisfied with the mere rudiments of science. With health, aspiration, courage and perseverance, any woman may be "thoroughly educated." The "deep mysteries of science have been unlocked" to many who were dependent upon their own energy, and will yet be unlocked to many more. A large number of our farmers' daughters are teachers in cities or towns, often in positions

of great responsibility; one, I now call to mind, a farmer's daughter from the Granite State, now one of the "Faculty" of a female college. A few teach, because compelled to depend upon their own resources; more, because their energetic spirits scorn to remain in idleness—burying their talents, when a wide sphere of usefulness is open for them; because they love the work, not because driven by poverty from the home-nest.

It is my humble opinion that we "should be content without pictures," if we cannot consistently possess them. With a moderate amount of genius, taste and contrivance, I think our walls need not be unadorned. Place all the works about your home that you are able. The heart will grow better for them. But because Raphael, Angelo, or Claude Lorraine may not speak to me from my library walls, I cannot consider it a duty to pine in melancholy, bemoaning my sad fate. When the rose on the window-seat opens its crimson petals, tell the child of the blessed Jesus, who is the "Rose of Sharon," who once trod this earth, and who so loved little children, that He died for them; and whenever his bright eyes rest upon the flower, will it not speak to him of the loving Saviour, with as powerful a tongue as a picture could?

Thanks to Polly for her invitation to visit her mountain home. The song of the wash-board is an old familiar air, but, as with us, the spinning-wheel is but a relic of "long ago," now furnishing the attic, I should doubtless enjoy its new and unknown melody. Visit my cottage home, Polly, and I will assure you that baking, sweeping and scrubbing shall all be finished, without leaving "mother to preside in the kitchen," in time for a quiet chat in the parlor, a horseback scamper over our beautiful plain, a walk by the blue water, or heart-wanderings in "Dream-land," with no intruding care to dim the sunshine. ANNA.

October 1, 1860.

*For the New England Farmer.*

#### FLOWERS ADAPTED TO A NORTHERN WINTER.

Seeing an inquiry in the *Farmer* of July 14, in regard to flowers adapted to a Northern winter, I send a list which I hope will prove satisfactory. Namely: Cupid's ear, or Monk's-hood; Baltimore rose; Drummond's phlox, all varieties; Canterbury-bell; Wall flowers; Marvel of Peru; Feverfew; Chinese pink; Mullen pink; Moss pink; Grass pink; Persian lilac; Foxglove; Flower-de-luce, purple and white; Dwarf Iris; Narcissus; Tulips, all varieties; Gladiola; Rudbeckia; Tassel-flower; Garden Heliotrope; Double Buttercup; Valeria, white and blue; Myrtle; Perennial Larkspur; Mock-orange; Flowering Almond; Perennial Pea and Pansy, all varieties.

There are many more which I have not mentioned, biennials and perennials, that would stand a Northern winter, with slight protection from frost.

J. T. SABINE.

Jeffersonville, Vt., 1860.

**SWAMPS AND MEADOWS.**—The reader will find an exceedingly interesting article upon this subject in another column, to which we ask attention.



*For the New England Farmer.*

### CROPS IN EASTERN VERMONT.

While portions of our country, and even of our own State, have suffered from the effects of drought the past season, we who are favored with a soil unequal in smoothness, and unequalled in fertility and capacity to endure the effects of extreme heat and cold, flood and drought, by almost any portion of our country, are rejoicing in well stored barns and granaries. Though our hay crop is less than an average by, say one-fifth, the quality is unusually good, and we have at least an average supply for our stock. Our smaller grains are almost without parallel, even on our own fertile hillsides. Wheat (spring) ranges from 30 to 40 bushels, and in some cases even more, per acre, of unusually good quality. Oats, from 60 to 100 bushels per acre; some fields go even higher than this. 80 bushels is a very common yield. Rye and barley also fully repay all the pains bestowed upon them. Corn is full an average crop, and the fodder is secured much better than it often is, so that we can winter as much stock as generally.

Now what will our poor kinsfolk on the naturally barren pine plains and white birch hillsides of Massachusetts say to 100 bushels of oats per acre—75 for an average? 40 bushels of the finest wheat? 50 to 75 bushels of corn? 15 to 20 ox-loads of pumpkins per acre? True, they can sell what rye straw they raise, and get more for their oats. But how many of them think they can afford to feed out all the grain they raise, while they strive to raise all they can feed? True, you have advantages over us, and we have more over you. Do not think that we must send you our oats and corn to raise our interest money. We can better afford to feed them here, and send you our butter, and cheese, and beef, and pork. Think not to buy our oats for a song, though our granaries groan with their burdens. We have learned that as bread is the staff of life, so manure is the staff of the farmer, and that grain is the grand producer of good manure. You may sell your berries, cherries, and plums, from your worn-out lands at great prices, and then pay your 8 to 15 per cent interest. We can find means to pay our six per cent., (a plenty at that,) by selling your butter at 20 cents and pork at 7 cents, nett, and then have the pleasure of seeing our colts going to Napoleon, and our nags to your cities, to draw the solid men of Boston, who have plenty of money to pay for them!

Come, brother farmers, in eastern Vermont, who have plenty of grain, let us feed it to our stock, unless we can get fair prices, and then sell but little, and see if our future crops do not show us a better return than the speculator does.

*Vermont Eastern Slope, Oct., 1860. P. J.*

**CENTRAL HEAT OF THE EARTH.**—The rate of increase of heat is equal to one degree of Fahrenheit for every forty-five feet of descent. Looking to the result of such a rate of increase, it is seen that at seven thousand two hundred and ninety feet from the surface the heat will reach two hundred and twelve degrees, the boiling point of water. At twenty-five thousand five hundred feet it will melt lead; at seven miles it will maintain a

glowing red heat; at twenty-one miles melt gold; at seventy-four miles cast iron; at ninety-seven miles soft iron; and at one hundred miles from the surface, all will be fluid as water, a mass of seething and boiling rock in a perpetually molten state, doomed possibly never to be cooled or crystallized. The heat here will exceed any with which man is acquainted; it will exceed the heat of the electric spark, or the effect of a continued voltaic current. The heat which melts platina as if it were wax is as ice to it. Could we visually observe its effects, our intellect would afford no means of measuring its intensity. Here is the region of perpetual fire, the source of earthquake and volcanic power.—*Recreative Science.*

### THE MECHANICS' FAIR.

Among the articles which we noticed with special interest at the late Mechanics' Fair, were a Patent *Bean Sorter and Cleaner*, a *Huckleberry Picker*, an *Oat Cleaner*, and a *Potato Sorter*, four small, ingenious, new, and highly useful articles to any farmer, each of which would annually save three or four times its cost, by enabling him with trifling labor to present his products to the purchaser in a clean and perfect condition, and then by materially enhancing their price. It is not the large machinery, the cotton gins, power threshers and mowing machines, that prove of the greatest usefulness to man, but the cooking stoves, apple parers, Babbitt's metal, washing machines, clothes' pins, and many other small and cheap, but indispensable articles. The articles enumerated above are of this character. They have been invented and manufactured by SANFORD ADAMS, of Boston.

An *Adjustable Ox Yoke*, by J. H. BRIGGS, Gloucester, Mass., is an excellent article, the design of which is to enable oxen unevenly matched to draw evenly, by a rack at the under side of the yoke; and it is all the more valuable because it can be fitted to any yoke now without it.

DAVID S. NEAL, of Lynn, had a *Fire Escape for Horses*, showing the crib, mode of fastening, and means of escape for the horses when their stable is on fire. We think it would be a good contrivance in large stables filled with horses.

JOHN M. DEARBORN, of Roxbury, had a *Coal and Ash Screen*, of the most primitive character, being merely a straight handle, much like a shovel handle, run through a sieve, and resting in grooves on the top of the barrel. A simple, cheap and efficient mode of sifting coal and ashes,—but does not prevent the flying of dust.

Messrs. LOOKEY & HOWLAND, Leominster, Mass., presented one of their unrivalled *Apple Parers*, which pares an apple so quick and easily that you scarcely know it is done!

A *Double-Acting Apparatus, for Sifting* any flour or meal into different grades, was presented by M. H. COLLINS, Chelsea, Mass. It is a new



invention, and designed to take the place of bulky rolling screens, and to save expense in flour mills. The inventor claims that it makes no dust, requires no machinery to screw the flour to and fro in the chest, saves room, will not clog, and is easily managed. Also, that a machine of this kind six feet long will do as much work as two rolling screens, eighteen feet long, and make as fine flour. With this he had a *Winnowing Machine* for cleaning corn, rye, oats, barley, grass seed, beans, &c., which was compact and effective.

J. J. AYRES, East Hartford, Conn., had a model of a *Self-Acting Farm Well*, which is claimed to be equivalent to a living spring in the pasture, or yard, as an animal can bring its own supply when it is needed. It is a capital contrivance. We have pictured and described it in the *Farmer* heretofore. He also presented a *Self-Acting Gate*, a model of which operated admirably. It is too expensive for common use, but just what would be appropriate for the entrance to parks and pleasure grounds.

Mr. T. N. BREED, of Lynn, had a collection of *Grindstones*, hung on friction rollers, and which were in every way excellent.

Messrs. WHITTEMORE, BELCHER & CO., Chicopee Falls, presented the *Eagle Hay Cutter*, *Corn Shellers*, *Meat Masher*, *Root Slicer*, *Apple Parer*, &c., all of which were admirably constructed.

Mr. R. S. TORREY, of Bangor, Me., presented numerous specimens of honey, together with hives filled with living bees, so tastefully and ingeniously arranged as to especially attract attention. The fruits of these bees, and the intelligent manner in which their master had controlled their labors, needed only to be seen to be appreciated. Mr. Torrey does not only say what can be done, but shows what he has done. His hives are constructed upon true philosophical principles, and are the only artificial ones we have ever seen which afford a perfect winter ventilation. As honey abounds in the country, and is a wholesome and palatable article, and as the culture of bees has a happy influence upon those who engage in it, we regard the information that will enable us to manage bees and secure their products as valuable to the community.

W. S. TILTON had a large and somewhat complicated machine for cutting up corn stalks, but as no one was present to explain its operations, we did not get a clear insight into it.

Several *Rotary Harrows* were on exhibition, by THOMAS R. BLAIR, Boston.

H. B. DAVIS, of Lexington, had *Patent Horse Rackets*, an excellent article, that enables the horse to travel over marshes or fresh meadows that are too soft for the bare hoof.

O. R. CHAPLIN, of South Boston, had a model of a *Patent Flexible Knife-Bar Mowing Machine*.

The inventor anticipates important advantages from the ability of his knife-bar to accommodate itself to *uneven surfaces*. We doubt whether his hopes will be realized in this particular,—but the machine has other important qualities, and especially one in the power given to the motion of the knives by the *leverage* attached to them. The ease with which it can be thrown in and out of gear, and backing without changing anything, are decided advantages. We hope to see a full-grown machine in operation.

H. MANN, East Attleboro', Mass., had a *Vegetable Hand-Weeder, with Garden Seed-Sower Attached*. We have spoken of this Weeder before as a most valuable labor-saving machine.

*Manny's Patent Improved Mowing Machine*, by ALZIRUS BROWN, Worcester, Mass., *Wood's*, by WALTER A. WOOD, Hoosac Falls, N. Y., and the *Buckeye*, by PARKER, GANNETT & OSGOOD, were on exhibition, and are all valuable machines and have won good reputation for themselves. With the Manny Machine there was a *Spring Tooth Horse Rake* which we thought had most or all the good parts of that important implement.

The model of a *Potato Planting Machine* appeared as though a full-sized one might be a valuable acquisition.

A little, simple and cheap *Fire and Garden Engine* was exhibited by JOSEPH BIRD, of Mount Auburn, Mass. It is a new, easy working, and yet most powerful little machine. It is so small, (weighing less than two pails of water,) that it can be taken to the fire in a moment, and from its largest pipe, 12 gallons of water can be thrown upon the flames in one minute. It is so strong that it cannot be broken by working; it is not liable to get out of order, and with proper care will last a century. The best possible recommendation of it that could be given was from a President of a State Street Insurance Company, who said, "Where Bird's system of preventing fires is adopted, I will insure at one-half the usual rates!" Mr. Geo. E. Bigelow, of Concord, is the agent for the sale of them in that section of Middlesex county.

PARKER, GANNETT & OSGOOD, Boston, presented a *Hoeing Machine* and a *Potato Digger*, invented by L. WETHERELL, Worcester, Mass. A good potato-digger is an article greatly needed on the farm. The only way one could judge of either of these machines would be from actual test in the field.

R. P. WILSON, of Boston, had an *Air Pressure Churn*. It is claimed that this churn will produce more butter from the same cream than any other, and that it will be more yellow, and come quicker. It certainly must be more easy to clean than any other we have seen.

WHITTEMORE BROTHERS presented a *Patent*

*Cylindrical Meat Masher.* It is intended for mashing beef-steak, instead of pounding it, and by the noise driving every body out of the house, and it is said makes the toughest equal to the most tender. It certainly promises to do much toward it. We have strong hopes, now, of eating a tender beef-steak.

A *Patent Tree-Cutting or Felling Machine*, by Col. HAMILTON, of N. H., attracted much attention. It can be used to saw a tree down, and saw it into blocks after it is down. It is simple and effective. We saw it take a tree off at the butt with great facility by a single man-power!

#### A NEW SEDATIVE.

The *Journal de Chimie Medicale* contains the following remarkable account of the discovery of a powerful sedative in cases of neuralgia by Dr. Field: Some time ago that gentleman was induced by a homœopath to put two drops of a solution, supposed to be diluted to the first degree, on his tongue, in order to try its effect. After the lapse of about three minutes, he felt a sensation of constriction at the base of the neck, then violent singing in the ear, while his forehead became covered with abundant perspiration. He then was seized with uncontrollable fits of yawning, and remained senseless for several minutes; his head fell back, his lower jaw sank down powerless, he became extremely pale, and for two minutes his pulse was silent. The homœopath, perceiving these symptoms, was terrified, thinking he had unconsciously committed a murder. Stimulants, however, brought Dr. Field to consciousness again, but he continued to feel a headache for half an hour after, with a sensation of pressure at the epigastrium and general weakness. These symptoms disappeared in the course of that time. It was evident that the substance employed was a powerful poison, and that it had not been sufficiently diluted; and it turned out to be nitrate of oxide of glycile, a substance obtained by treating glycerine at a low temperature with sulphuric or nitric acid. One drop, mixed with 99 drops of spirits of wine, constitutes the first dilution. Dr. Field was immediately struck with the idea that he had experienced the effects of what in a much weaker dose, must be a useful sedative of the nervous system; while the homœopath was overjoyed at having discovered what he conceived to be a powerful remedy for apoplexy. After various trials upon animals, Dr. Field at length resolved to test this new remedy on patients. He did so first on a lady 68 years of age, who had long been suffering from neuralgia, which returned at intervals of three hours, and had resisted every remedy known, such as ammonia, asa-fœtida, chloroform, &c. The fourth part of a drop of the above solution being administered, she was at once relieved; but some of the symptoms experienced by Dr. Field being felt by her also, she discontinued the remedy, but her sufferings soon obliged her to have recourse to it again, and she was completely cured. It has since been tried in cases of headache and dental neuralgia with equal success.—*Galiganani's Messenger.*

#### ROTATION OF CROPS.

There seems to be a feeling more or less prevalent among farmers, even among the readers of agricultural papers, that those who write upon "Rotation of Crops," "Improved Stock," "Drainage," "Manufacturing Manures," "System in Farming," and similar topics, belong generally to that class known as "fancy farmers," or as "city folks who farm for amusement, without regard to the cost." We propose, therefore, to vacate the editorial chair for the time being, and allow an individual of the "practical" class, one who "has made a fortune at farming, or a considerable portion of one, and who has the ability to tell how it was done," to use our editorial pen. He insists on using the big "I," but as he is a Scotchman, and promises to introduce himself, this little bit of independence will be excused. It may be proper for us to say that he comes to us with recommendations from the Secretary of the Canadian Board of Agriculture. It will be noticed that our favorite crop, Indian corn, has no place in the rotation of our Canadian friends. Its introduction, or any other improvement on his system, we leave to the good judgment of each one of our readers; believing that some will be glad to know how a poor man has improved a poor farm, and made money by the process.

#### INTRODUCTORY.

I came to the country thirty years ago, and burdened with a debt of \$200; I leased a worn-out farm in Lower Canada of eighty-four acres, in the midst of a French population, and at an annual rent of \$225. Well, in the space of 21 years, I have paid my original debt, and saved enough to enable me to purchase in the neighborhood a much better farm than the one I rented. The owner of the farm which I bought, was going on every year from bad to worse, until he was forced to sell it, whilst I, the tenant of a less productive farm, and paying rent all the while, was enabled to buy him out, as just said. What was the reason of this anomaly? The Canadian was stronger than I was, had equally good health, and no rent to pay. The reason was that he had no system; he let his land become exhausted and full of weeds; he let his stock starve; he wasted his manure, the gold of the farmer, and let everything go on to ruin for want of method; but when I had got hold of this same farm, and had applied the system which I am about to describe, the whole was brought gradually, field by field, into good condition by the end of six years; since then, the condition of the land has steadily improved, and that by resources drawn wholly from within itself. The system to which I allude is known to all good farmers everywhere as the basis of all improvement: I mean that of

#### A ROTATION OF CROPS.

There are two sorts of reasons in favor of a rotation of crops.

1st. Because different plants draw from the soil different sorts of food, so that one plant will

grow freely a in soil which is worn out as regards another.

2d. Because the crops being various, the occasional failure of one is not so much felt, seeing that the others furnish subsistence sufficiently without it.

In the beginning of the application of this system, divide the arable portion of the farm, of whatever size, into six parts or fields. Apportion the crops as follows:

1st. Root crops, such as potatoes, carrots, beets, parsnips, &c., (turnips and also flax,) and in cases where the land is not sufficiently open for a crop of this kind, the field must be left in fallow.

2d. Crop of wheat or barley, (seeded with grass.)

3d. Crop of hay.

4th. Pasture.

5th. Pasture.

6th. Crop of oats or peas.

That field of the series which is in best condition for a root crop, should be called field A.

The best for wheat or barley, B.

That which is actually in hay, C.

The pasture fields, D and E.

That which is best for oats or peas, F.

Each field for the first year ought to be appropriated to the crops above mentioned, and after the fashion now in use among farmers, except in the case of field A. By this plan, they will at all events still get as much from their five fields as they get at present.

In order to render the thing more simple and easy of comprehension, I shall suppose myself to be again obliged to take a worn-out farm in the autumn of 1849. The first thing that I should do, would be to divide the land into six fields, by proper fences, with communication from the barnyard to each field, and from one field to another, and I would then take for field A, that which appeared best for green crops or roots: I would collect all the manure which I could find in or out of the barns, I would take up the flooring of the cow-house, stable and piggery, and I would take out as much of the soil underneath as I could get for this soil is the essence of manure, one load of it being as good as four or five loads of common dung. The portion thus removed ought to be replaced by an equal quantity of ordinary soil, or, if it be possible, of bog earth, which might be removed when necessary afterwards.

The dung and other manure thus collected, should be placed on the field A, in September or the beginning of October, spread with care, (as far as it will go,) and covered up in a shallow furrow.

In spring, all the manure made during the past winter should be carted to the field, placed in a heap, and twice turned. All bones should be gathered and broken up with a hammer, all coal and wood ashes, scrapings of sewers, the dung from the fowl house, and the contents of the privy, should be collected and made into a compost, with dry loam or bog earth. This manure may be used for that portion of the field devoted to cabbages, potatoes and turnips.

Manures are of the first importance to the farmer, and he must do everything in his power to increase their amount. The system here proposed is calculated so as to increase the quantity of manure in proportion as the soil becomes im-

proved. The farmer ought not to sell a particle of his hay or straw, because these are the principal materials for manure; and, consequently, it is infinitely worse to sell the manure itself. The manure thus economized, will suffice each year for the field which is to receive the root crop, (No. 1.)

The greater variety there is in the crops of this field, the better it will be, provided the soil is suitable for them. Thus, this field ought, as nearly as possible, to look like a kitchen garden.

#### SUCCEEDING CROPS.

I have done all that I can for field A. I have weeded and manured it as well as I can: and after having taken the crop of roots, &c., this year, and the crop of wheat or barley next year, I leave this field to rest until the other fields have been improved in the same way. In the following year, the cultivation of the different crops will be according to the following order:

Crop No. 2, (wheat or barley,) in the field A,

Crop No. 3, (hay,) in the field B,

Crop No. 4, (pasture,) in the field C,

Crop No. 5, (pasture,) in the field D,

Crop No. 6, (oats or peas,) in the field E,

Crop No. 1, (green or hoed crops,) in field F, and so on, changing each year until the seventh, when crop No. 1 will come back to field A, and the whole will then be in a good state of fertility, and free from weeds.

The above system has been proved to be capable of restoring old land, and extirpating all weeds. It is economical, and does not require more capital than the actual system, or rather than the present absence of system, requires. It will restore fertility to the soil, and maintain it by the products of the land itself. Manures got from other quarters than the farm itself, are always expensive, and, at a distance from town, are often not to be had at all. It is simple and easy of application.

It may be said that six years is a long time to wait for the renovation of the whole farm; but I will reply that I know of no other means by which it may be done in less time, from its own resources; and it is worthy of observation that the land is improving every year. The produce is larger, even for the first year under this system, than it is under the present mode of culture; and from year to year, the land is improving, field by field, and is producing more and more, so as to pay the farmer better than it does at present, and to recompense him doubly afterwards, when the whole shall have been improved under a system of rotation."

#### TREE PLANTING.

"Have you never heard of the student, who, on being told that the crow would sometimes live a hundred years, bought a young crow to try the experiment?" Yes, indeed, we have heard of him—the irony is excellent—and of Dr. Johnson's growl about "the frightful interval between the seed and the timber." Still, we say, plant trees. They who plant at once, instead of wasting their breath in selfish complaints of the shortness of life, find luxuriant foliage waving over them much sooner than they expected. But, whether you live to see the maturity of your trees or not, be benevolent enough to plant for posterity. Transmit to your children the inheritance of ru-

ral beauty received from your fathers, greatly augmented. By all means plant, and plant well, and the result will overpay the labor. And let not your work end with planting. Feed your trees from year to year with generous food, and guard them from injury. And, in the words (slightly altered) of an old planter: "What joy may you have in seeing the success of your labors while you live, and in leaving behind you, to your heirs or successors, a work that, many years after your death, shall record your love to your country! And the rather, when you consider to what length of time your work is like to last." If you have country homes to embellish, be content with simplicity. Remember that a great establishment is a great care, and that the proprietor is apt to become a slave to it. Let your dwelling-places be marked with what painters call "repose." Make them the abodes of comfort and refined enjoyment, places which will always afford you agreeable occupation, but not oppress you with care.—*North American Review.*

### EXTRACTS AND REPLIES.

#### WHITE AND RED GRAPES.

MR. FAY:—I send you a few of each kind of grapes, in order that you may know what those vines I sent you this spring will produce when they come to bearing, and that you may reject them at once if you do not like them. If you do think them worthy, as compared with other grapes, I should be pleased; and if you please, you may invite the editor of the *Farmer*, to look at them.

The top layer is the red grapes, the bottom the white; the white vine had but very few on it this year. *Foxboro', Sept. 25, 1860.* L. R. HEWINS.

REMARKS.—The above note was sent by Mr. Hewins to Mr. Fay, to whom Mr. H. had sent some grape vines. Mr. Fay has kindly brought us some of the grapes spoken of, and we have tasted and compared them with some other varieties now quite common in every part of the State. The reader, we believe, will understand our position with regard to the cultivation of fruits—it is this:—*Never to encourage the cultivation of fruit of any kind, unless it is of the first character.* It requires no more room, or care, to cultivate a good grape than to cultivate a poor one, and when the fruit is produced there is this difference—the good fruit is pleasant to the palate, nutritious, and affords a real pleasure in presenting to friends, or pocketing its profits in the market,—while the poor or indifferent fruit gives no pleasure to the taste, mind or pocket, and one is all the worse for eating it. If our friend Hewins could eat a grape now hanging in beautiful purple clusters on fifty farms in the town of Concord, and nearly every other town in the State, he would find no hard core remaining upon the tongue, and a sharp acid coming from it when pressed too closely, but a soft, juicy, aromatic flesh, dissolving in the mouth readily, and invigorating the whole system. We cannot judge of fruits singly—the test is in comparison. We do not think the grape sent us ought to be cultivated. Just as well to have a better one.

#### SQUASHING OUT.

At the fine display of fruits and vegetables in this place the present week, I noticed four squashes weighing 338 lbs. on one vine, that grew in the garden of Mr. W. T. Dole. The seed that produced these was taken from the squash grown by Mr. Porter the last season, that weighed 164 lbs. There were also 29 squashes of

the marrow variety, weighing 395 lbs., varying from 12 to 20 lbs. each, in appearance of superior quality. The general aspect of the show was equal to anything of the kind I have ever seen, and was so pronounced by disinterested observers. P.

*South Danvers, Sept. 26, 1860.*

#### WOOD MATTRESSES—IRON GRIST MILL.

In your issue of Sept 8, under the head of "Mattresses filled with wood," you say, "one of the Yankee inventions of the past year is a machine for making curled hair for mattress-filling out of wood." Can you give me the inventor's address or the venders, or let me know where it can be seen in operation, or give me any information in relation to it?

I saw on exhibition in Quincy Hall, a few days since, a recently-patented iron grist-mill; but there was no one in charge of it to answer questions, neither is it noticed in the "Journal and Catalogue." I hope this will meet the eye of the inventor or agent, and induce him to advertise it in the columns of your widely circulated and useful paper. LOWELL.

REMARKS.—The article about mattresses was a "waif" which we found in an exchange. It interested us, and it appears did others—but we know nothing personally of it.

The iron grist mill attracted our attention in the Fair. It is called "The Union Portable Feed and Flour Mill," E. J. Hyde, Proprietor, Boston.

#### GRAPES.

MR. JOHN COOK, of Sandwich, Carroll county, N. H., has this year raised grapes, measuring three and one-fourth inches in circumference. The scion upon which they grew was obtained from Lowell, Mass., from the vintage of D. Carter, Esq. They are of the Mammoth Globe Seedling. J. P. S.

#### SPRING WHEAT—A GOOD CROP.

MR. ALPHEUS BACHELDER, of this town, raised, the present season, a field of four acres of spring wheat, which yielded thirty-two bushels to the acre.

The soil is a clay loam, and descends slightly to the south-west. Mr. Bachelder purchased the land a few years since, at forty dollars per acre, which was thought by some a large price.

Calling the thirty-two bushels \$1.50 per bushel, and the straw \$4 per acre, the crop amounts to \$52 per acre, a very good return for one year.

Spring wheat is mostly raised here in this vicinity, and considered a much safer crop than winter wheat. *Springfield, Vt., Oct. 1, 1860.* J. R. WALKER.

#### GROWTH OF COLTS.

I would like to inquire through the columns of the *Farmer* if there is any correct way of knowing, by measuring the limbs or otherwise of a colt three or four months old, how large it will be when it is fully grown, and at what age, with proper treatment, it will reach its full size? A FARMER.

*Andover, N. H., Sept., 1860.*

#### A DISEASED OX.

I have an ox that has not chewed his cud for the last eight weeks, but eats as well as ever. When I work him he lows and makes a gurgling noise. I have tried various remedies that my neighbors have prescribed, but to no good purpose. If you, or any of your readers, will inform me what to do, they will confer a favor. A SUBSCRIBER.

*Warren, Sept. 26, 1860.*

A BARTLETT PEAR.—The finest specimen we have seen this year, is from the garden of Wm. C. Brown, Esq., of Chelsea, and the product of a good sized tree set only two years ago. This shows what large and fine trees will do when properly transplanted and tended.

## AGRICULTURAL EXHIBITIONS.

September brought the great agricultural festivals of the farmer, which have got to be almost as much of an institution as the Fourth of July or Thanksgiving. That they have been the means of calling attention to the great Art, and of decided improvements and better modes of husbandry, cannot be doubted; and that they have introduced some objectionable features not contemplated by the laws encouraging them, or by those persons who were principally instrumental in establishing them, is to our mind equally clear. The tendency is, we notice, in each returning year, to depart more and more from the original purposes of their foundation, and fall into practices essentially opposite to those upon which they were started. The farmer himself is gradually losing his hold and control of them, and there are symptoms everywhere that elements of discord are already introduced that will finally destroy their usefulness. In the light of these circumstances, we cannot help entertaining the question, at least, whether the bounty of the State has not been continued quite as long as is profitable to the cause, *in the direction in which it is now applied?* There are other modes of application which have been put in operation in other places, and which have not failed materially to promote the cause. We will not designate those modes at present, but at some future time, when the hurry and bustle of the present has passed away, may suggest some of them for the consideration of those who are leading in these matters.

Our purpose now is to make record of the fact that certain societies have held their usual exhibition, and to notice, briefly, such leading points as seem to us essential.

We commence with the Show of the *United States Agricultural Society*. From the accounts we have seen and heard, we should judge that if it was not a failure in one respect, it was in another—that is, that it failed to be conducted with harmony, and gave satisfaction to none. *Twenty-seven thousand dollars*, it appears, were appropriated in making preparations and paying premiums, and persons employed. The expenditure of such a sum ought to secure obvious and permanent good results. That it has done any such thing we have yet to learn.

Nearer home, on Wednesday, Sept. 26, the first annual Show of the *Bristol County Agricultural Society* commenced at Myrick's Station, and continued two days. There was the usual display of farm products. About a thousand persons sat down to the dinner table, which was a capital feature of the occasion. Speeches of an entertaining character were made by Charles T. Russell, of Cambridge, Rev. Mr. Brigham, of Taunton, Hon. Thomas D. Elliott, of New Bedford, and

others. The officers chosen for the ensuing year are: President—Dr. Nathan Durfee, of Fall River; Vice Presidents—J. D. Thompson, of New Bedford and Laban McWheaton, of Norton Recording and Corresponding Secretary—Robert Adams, of Fall River; Treasurer—S. A. Drew, of East Taunton; Auditor—Charles P. Robinson, of Raynham; Chairman of the Board of Directors—John M. Howland, of New Bedford.

The *Hingham Agricultural and Horticultural Exhibition* took place Sept. 22 and 23, and we learn was a fine exhibition in every respect. The people generally took a great interest in it, and attended it in large numbers.

The *Essex County Show* took place at South Danvers, Sept. 26th and 27th. The display of live stock, fruits, &c., was large, as usual. The address was given by Prof. Russell, of Salem. He said "the Frenchman who deplored his want of means to enable him to make a foreign tour turned his attention to his garden, and there discovered wonders he had not before dreamed of. These wonderful discoveries were in the reach of every farmer. Agriculture could be pursued as an art, and it was a matter much to be regretted that so many farmers, in their cultivation of the soil, in their general arrangements about their fields, and buildings, and in their social relations, exhibited the marks of an age that ought to have passed away. They were full of wise saws and signs, but took no note of the signs of the times. The barbarous ages of agriculture still lived, and the best condition we saw was but a development of that culture. To the nomadic tribes of this continent were we indebted for corn, pumpkins, beans and sweet potatoes.

But as an art agriculture becomes a branch of national industry, and has relations with national prosperity. The poorest farm in Essex county ought to borrow some of the advantages of the improved cultivation of the day. A well laid out and carefully cultivated garden ranked among the highest products of artistic skill. The first settler in a new country finds the trees usurping the soil. They must be removed to let in the sunlight, but before the circle is completed he is again found restoring trees in the places of the primitive giants.

Obstacles to good agriculture were found in the too prevalent idea that the cultivation of the soil was not the most honorable occupation, and from an idea that scientific farming was too expensive. He thought agriculture ought to be taught to those who are to teach again. At the base of agriculture lay chemistry and botany. There was no science so elegant, so refined, and so suited to the youthful taste, as the study of the vegetable kingdom. Even the weeds that clustered about the school-house, and looked in so lovingly, were ob-

jects of interest, and seemed to covet the knowledge denied to them by their organization. Would it not be as well for a boy to study the wood that is consumed in the school-house stove as to learn unpronounceable names of foreign countries? If men would have their sons settle near the family hearth, let them make the farm attractive. Adorn your dwelling with flowers, and encourage your children to cultivate them. Do not laugh at the boyish or girlish love of a flower in a cracked teapot. Labor was relieved of half its toil when smiled upon by the elegancies of life; and the kindest hearts were those of people who cultivated the tulip, where more practical persons would have had a potato patch."

The officers elected for the ensuing year, were, President—Allen W. Dodge. Trustees—Horace Ware, Marblehead; E. S. Williams, Newburyport; P. O. Hatch, Hamilton; G. B. Loring, Salem; Richmond Dole, Georgetown; John B. Jenkins, Andover; Robert Brookhouse, Jr., Salem; J. Newhall, Lynnfield; J. M. Ives, Salem; Paul Titcomb, Newbury.

The Society voted to instruct the Trustees to take into consideration the expediency of holding their exhibition in future at the Society's farm in Topsfield. The Society numbers about 1000 members, has funds amounting to \$10,000, a farm in Topsfield—the gift of the late Dr. J. G. Treadwell, valued at \$6000—and a library valued at about \$1500.

The *Waltham Agricultural Library Association* held their third exhibition Sept. 26th, continued three days, showing considerable progress in the products of the earth, and that the citizens of that beautiful town are energetic and intelligent.

The *Merrimack County, N. H., Agricultural Fair* was holden Sept. 27th, at Concord. The exhibition was a fine one. Address by Eli Thayer, of Worcester.

The *Franklin County Fair*, at Greenfield, went without its usual second day, its cattle, its address, its dinner, its speeches, and yet was very successful, interesting and profitable. There was a fine display of sheep, especially.

The *Housatonic Cattle Show and Fair* was holden at Great Barrington. One novel feature of the Show was the exhibition of a new patent telegraph instrument, working inside the hall. The address was by Stephen E. Burrall, of New York.

The *Carroll County Agricultural Fair* took place at Sandwich, N. H., and is reported to have been a good and successful show.

The *Annual Exhibition of the Maine State Agricultural Society* was holden at Portland. This was their sixth exhibition, and has been a successful one. Every department of the farm, we learn, was well represented.

The working cattle, from their various breeds, made a fine display, and showed to advantage the various excellencies they possess. To mark the improvement which a few years have brought about in the size of cattle, one has but to look at the beef creatures now, and call to mind what they were before cattle shows prevailed. Time was, and that not so very long ago, when, if a butcher slaughtered a creature which, when dressed, weighed a thousand pounds, he made a great ado about it, and told all his neighbors. Now the butcher looks for 1500 or 1600 pounds to the creature, and generally gets it. This fact speaks decisively concerning the improvement that has been made in meat culture. It is a practical fact which all can understand. Agricultural exhibitions have created this fact.

The Eighth Exhibition of the *Worcester North Society* was holden in Fitchburg, Sept. 25th. No premiums were offered for neat stock. The address was by Dr. George B. Loring, of Salem. Subject—"The Social and Civil Condition of Farmers." The Society and others dined at the Fitchburg Hotel.

#### AMERICAN GUANO.

Extracts of letters and reports of Baron Von Liebig, President of the Royal Academy of Sciences, and Professor of Chemistry at Munich, upon the American guano from Baker's and Jarvis Islands, forwarded to John B. Sardy, as agent for Wm. H. Webb, by James R. Mac Donald, Esq., United States Consul at Hamburg. Under date of Aug. 11th, 1860, Mr. Mac Donald writes:

"Enclosed I send you a letter of much importance, containing a report from Baron Von Liebig, which leaves nothing to be desired. Prof. Liebig, after reporting the analysis of the Guano in the most scientific manner, (and by various tests,) states 'that there are no analyses made on order in the chemical laboratory of the Royal Academy, and that I take charge of this examination by exception, not to gain something by it, but as I felt a great interest in the matter, \* \* \* and I have spent two months' labor in the matter. \* \* \* The Baker's Island guano contains more phosphoric acid than any other known fertilizer; and it is similar in its ingredients to natural phosphorite, differing from it, however, in the following remarkable particulars: Phosphorite is in a crystallized state, and is completely insoluble in water. The Baker's Island guano, on the contrary, is amorphous, is soluble to a considerable extent in pure water, and when moistened, colors litmus paper red. The Jarvis Island guano has also an acid reaction, and is partly soluble in water. It is worthy of remark, that the Jarvis guano, although only half as rich in earthy phosphates as the Baker's, gives to water a greater quantity of soluble phosphoric acid. I regard the discovery of these guano deposits as a most fortunate event for agriculture. At the present time the prices of fertilizers like bones are now continually on the increase, and soon the agriculturist will not be able to procure, at paying rates, an amount

sufficient for his wants. Baker's Island guano, being of all fertilizers the richest in phosphoric acid, will be of especial importance. As far as chemistry can judge, there is hardly room for a doubt that in all cases where the fertility of a field would be increased by the use of bone dust, the Baker's Island guano will be used with decided advantage. The phosphate of lime in the Baker's Island guano is far more easily dissolved than that of bones, and if we take the proportion of that ingredient to be sixty pounds in the latter, one hundred pounds in the Baker's Island guano are equivalent to one hundred and forty pounds of bones. Thus the agriculturist would be benefited as much by using seventy pounds of Baker's Island guano as by one hundred pounds of bone dust. This guano contains in ammonia, nitric acid and azotic substances, nearly one per cent. of active nitrogen. A small addition of salt of ammonia would give it the full strength of Peruvian guano.

"For turnips, clover, &c., the Jarvis Island guano is just as good as the Baker's. Judging simply from its percentage of phosphates, it is of less value as an article of importation; but it is rich in sulphate of lime, which is also a fertilizer, and its phosphoric acid is of higher value, as nearly half of it exists in soluble phosphate of lime. The Jarvis Island guano would seem to be an excellent means of restoring cotton or sugar plantations whose soil has been worn out by long-continued cultivation. I think it is preferable to Peruvian guano, which, being rich in ammonia, tends rather to great development of leaves and stems."—*N. Y. Journal of Commerce*.

#### A PLEA FOR THE CROW.

A series of articles on birds, in the *Atlantic Monthly*, understood to be from the pen of Wilson Flagg, of Beverly, Mass., has given that work a considerable reputation, in an ornithological point of view. In a recent number, the author speaks a good word for the crow, and we hope all our readers will read the following extract, and then judge as to the truth of the statement:

"He consumes, in the course of the year, vast quantities of grubs, worms and noxious vermin; he is a valuable scavenger, and clears the land of offensive masses of decaying animal substances; he hunts the grass fields, and pulls out and devours the underground caterpillars, wherever he perceives the signs of their operations, as evinced by the wilted stalks; he destroys mice, young rats, lizards and serpents; lastly, he is a volunteer sentinel about the farm, and drives the hawk from its enclosures, thus preventing greater mischief than that of which he is himself guilty. It is chiefly during seed-time and harvest that the depredations of the crow are committed; during the remainder of the year we witness only his services, and so highly are these services appreciated by those who have written of birds, that I cannot name an ornithologist who does not plead in its behalf."

**GALVANIZING SILK WORMS.**—Silk worms require as much persuasion to induce them to work as the laziest negroes. M. Sauvageon reports to the Academy his experience in the matter. Find-

ing the little things torpid and unwilling to work, the idea struck him to stir them up by electricity. The results, as he gives them, are really marvellous. He took fifty-three worms at random from among thousands belonging to a neighbor, put them every day on a sheet-iron plate through which a current of electricity was passed, kept them each time as long as they could stand it, and now has fifty-three beautiful cocoons, an amount which his neighbors will not obtain, to all appearances, from several thousand ungalvanized worms. If these results may be relied on, he has made a very valuable discovery.

*For the New England Farmer.*

#### SHINGLING.

**MR. EDITOR:**—A correspondent in the *Farmer* asks, "What will make shingles last longer?" Twenty-three years ago I found I had quite a lot of refuse shingles on hand, both sappy and shakey, and I laid them on the back kitchen and woodshed.

I have just examined them, and think they will last at least seven years longer. The building has not leaked, to my knowledge.

I soaked these shingles in a very thin whitewash made with brine instead of clear water. There has been nothing done to them since, although I have no doubt that to have whitewashed, or served a coat of dry-slaked lime or fine salt once in two or three years on them, would have been of great advantage to them.

As I shingle differently from almost any one else, I will give you my method, and my reasons for it.

However wide the shingles may be, I do not allow the nails to be put more than two inches apart.

**Reason.**—If your shingles are wet or green, and the wide ones are nailed at the edges, the shingle must split, or one of the nails must draw when the shingle shrinks. If the shingle is dry it must huff or crowd the nail out when it swells. Thus your nails are kept in constant motion by every shrink or swell of the shingle, till they are broken, pulled out, or the shingle is split.

I do not want the nails drove quite in, or so as to sink the head.

**Reason.**—The heads of the nails hold up the butts of the next row of shingles, and give the air a free circulation.

I lay all my shingles in whitewash. I prefer brine for making it. I line with red chalk. I then whitewash the last course laid down to the line, and after the building is shingled I whitewash the whole of the roof.

**Reason.**—To make the shingle last twice as long as they would without the whitewash, and I consider it much better than just whitewashing the roof after shingling.

Carpenters often object to shingling in this way, as it is rather dirty work, and declare they know it does not do any good—that it is just as good to whitewash after shingling, &c.

*Hollis, Sept. 29, 1860.*

**ED. EMERSON.**

**REMARKS.**—Capital. A common practice of these suggestions would probably save thousands of dollars in time, lumber and nails, annually.



## EGYPTIAN CORN.

Some time in May last, Mr. M. E. Crandall, of Illinois, advertised what he termed Egyptian corn, in the columns of the *Farmer*, stating that "upon trial last year it was found to ripen, planted even the *first of July*. It is estimated, from its very prolific qualities, to yield 200 bushels per acre, and weighs by sealed measure, 65 pounds to the bushel. This corn was produced from some procured direct from Mr. Jones, our Consular Agent, directly on his return from Egypt. It requires no different culture from that of other varieties, and in the South two crops can be raised in one season on the same ground. It grows in the form of a tree, and twenty-two ears have grown upon one stalk, and will average from five to fifteen. For domestic use it is unparalleled. When ground and properly bolted, it is equal in color and fineness to wheaten flour. As a forage crop, by sowing in drills or broadcast, for early feed, there is no kind of corn so well adapted to milch cows, and none that will yield half the value in stalks or corn."

His proposition was, that to any person who would enclose to him one dollar, in stamps or currency, he would send, postage paid, sufficient corn to produce enough to plant, the following year, from twenty to thirty acres, together with the directions for planting and cultivation.

Some of our readers acceded to his proposition, and purchased the corn and planted it. One of them, Mr. ABRAHAM B. DAVIS, of Palmer, this State, has brought us a sample of the corn, stalks and all, taken up by the roots. He states that he planted it on the 28th of May, in a very favorable place, where the soil was rich, and having the advantage of wash from the cow-yard. The sample before us is about seven feet high, and has four upright shoots, all having sprung, undoubtedly, from one kernel of the corn. Three of these shoots are quite slender, the fourth being stouter, but not so large as the stalks of our common twelve-rowed corn.

On these four stems there were *five* ears of corn, each about six inches long, not filled out at the top, not ripe, and the kernels about the size of the small, eight-rowed Canada corn. There were beside these, eighteen ears set and silked out, but no corn on more than half of them! The stalks had an abundance of leaves, and we should think would make a good article for fodder, either green or dried.

We refer to this matter to show the results of one experiment with the Egyptian corn, and to ask our friends who "enclosed one dollar in stamps or currency," to Mr. Crandall, and who have grown the Egyptian corn, to inform us what success has attended the experiment.

## TO HATTIE:

THE BELOVED AND DEVOTED DAUGHTER OF THE LATE A. F. DEERFIELD, MASS., U. S. A.

*"The Farmer of the Valley; the Man of Pleasant Cheer; Who weathered all the storms of life thro' many a passing year!"*

Brown AUTUMN leaves and golden sheaves  
Proclaim the harvest home;  
They seem to say, "With us away,  
The spirit land to roam."  
'Twas Autumn's boast, a thronging host  
Had joined her gorgeous train;  
He waved his hand,—"Your gathered band  
May pass, but I remain!"

WINTER comes soon, with glittering moon,  
And radiant stars of night;  
The sky abounds with sparkling crowns,  
And spangled robes of light;  
The mighty slain which swell her train  
A valiant heart might fear;  
But her cold hand could not command  
"The Man of Pleasant Cheer."

Next, beauteous SPRING, on Earth doth fling  
Her robe of living green;  
Her dews and rain refresh the plain,  
And raise to life the scene.  
"For one more strife I'll cherish life,  
And battle once again;  
For loved ones near, and souls most dear,  
I go not in her train."

Last, SUMMER came, with fragrant fame,  
Array'd in blooming flowers:  
And balmy June, with rich perfume,  
Reviving long passed hours:  
In bright array, she passed that way  
With her attendant band:  
"Welcome!" he said, then, bowed his head,  
And soar'd to the Spirit Land.

No mortal sight can trace his flight:  
Up mounts the deathless train,  
As morning light upsprings from night  
O'er hills of waving grain!  
Midst shady trees at evening breeze  
The Guardian Spirits say,  
"You happy band to the Spirit Land  
"Have passed through the Milky Way!"

Angels of might, with rapid flight,  
Descend to join the throng;  
With music sweet, the soul they greet,  
Of him they loved so long.  
On sportive wing, let wild birds sing  
In joyous notes and clear,  
And every June their songs attune  
To "The Man of Pleasant Cheer!"

London, Nov., 1856.

J. E. F.

*For the New England Farmer.*

## SOIL FOR GRAPES—BARREN GRAPE FLOWERS.

I find in the *Farmer* several questions addressed to me by "W. D.," of Leominster.

*First.* If it is desirable to trench a strong, heavy soil two feet deep for grapes? I do not consider such a soil suitable for grape culture. As a general rule, the stronger and heavier the soil, the greater the necessity of deep trenching and draining.

*Second.* I do not lay down my vines in the winter—but if desirable, those trained to stakes are as easily laid down as from any other mode of training.

*Third.* At the time I wrote the article referred

to, I had not had much experience with the Delaware. As a table grape, I place it at the head of our native grapes.

Mr. Tyler, of Brattleboro', in speaking of my illustration of the imperfect grape blossom asks:—*Is it ascertained that the impression of these barren flowers is radical and perpetual, or is it a result of immaturity, which time will remove?*

I do not hesitate to say that neither time nor culture will remove the defect. I know of no instance, either in the animal or vegetable kingdom, where so glaring a constitutional defect has been cured.

Neither have I any confidence in vines that blossom five or ten years without showing fruit, and then suddenly become fruitful.

E. A. BRACKETT.

Winchester, Sept. 24, 1860.

#### AUTUMNAL SHOWS.

At the close of the late *Merrimack County, N. H., Fair*, the following list of officers was chosen for the ensuing year:

*President*—Moses Humphrey, of Concord.

*Vice President*—Nathaniel White, of Concord.

*Secretary*—Jonathan E. Lang, of Concord.

*Treasurer*—Enoch Jackson, of East Concord.

*Directors*—John C. Gage, of Fisherville, Aaron Whittemore, of Pembroke, Emery B. Bachelder, of Loudon, Moses H. Bradley, of Concord, and Daniel E. Colby, of New London.

The *Cheshire Society's Exhibition* was held at Keene, Sept. 25 and 26. It had a balloon and "trotting for the citizen's purse." There were 500 entries on the books. Neat Cattle, 183; Horses, 89; Sheep, 37; Swine, 14; Poultry, 8—28 specimens; Products of Dairy, 4; Manufactures, 48; Miscellaneous, 152; Fruit, 23 entries, comprising 348 varieties; Vegetables, 7. There were 10 entries for the walking matches; 9 for the trotting matches; 4 for plowing with horses; 6 for plowing with oxen.

The eleventh annual Fair of the *New Hampshire State Agricultural Society* took place on Tuesday, Oct. 2, and was continued three days. About 100 horses were entered; in a quite full account in the *Journal of Agriculture*, the reporter says of neat stock,—"we do not think there is so large a cattle show as there has been in previous years." Sixteen sheep, about a dozen entries of swine, and "but a few feathered animals were on the ground." Let us see how this looks analyzed and printed, thus:—

Horses,—100—Stallions.

Matched Horses.

Working Horses.

Family Horses.

Mares and Foals.

Geldings and Mares.

Colts.

Horsemanship.

Chief Marshal and some fourteen assistants, all mounted and uniformed with the tasty blue and red sash and rosette, first rode around the track for about one hour, when the track was cleared and the horses entered to

Trot for the Citizen's Purse.

Ladies' Equestrianism.

Ladies Driving in Carriages.

Family Carriage Horses.

Steam Fire Engines.

Base Ball.

Lady Thrown.

The Great Trot.

Pacing.

Walking Horses.

Foot Race.

Stallion Trot.

As this is the eleventh Annual Fair of the *State Agricultural Society*, and as the farmers of the State are supposed to be the agriculturists, let us see what they presented to make up an interesting and profitable attraction. Some of the horses belonged to them, undoubtedly—but probably more of them to those who are not farmers.

Neat Stock not much—"We shall notice this department more fully hereafter, when we have more room and time," says the reporter. The reader has noticed that something has been said about horses!

Sheep,—One Buck.

Two superior Sheep.

Sixteen of superior Breeds

Swine,—About a dozen entries.

Articles in the Tent, where the "display of fruit and vegetables exceeded that of any previous year," and "the mechanical and agricultural implements looked finely."

Plowing Match—Two entries of horse teams, and four to plow with oxen!

Such is an analysis of the Eleventh Annual Fair of the *New Hampshire State Agricultural Society*, which will enable the reader to see how much of the matter was agricultural, and how much something else. We do not refer to this society as being singular, but only as falling in with the popular, and as we consider it, most unfortunate practice which has been adopted by many similar associations. Under these delusions, the management of these shows is rapidly passing out of the control of the farmer, his products are dwindling down to insignificance, and that *animus*, which was once imparted to the farming community through their agency, is diverted to another, and a questionable direction.

We approve of display, sometimes, of public gatherings for amusement and instruction, and believe that, as a people, we have too few holidays; but when we have a farmer's fair and festival, we think his mind should be directed and

devoted to the things that pertain especially to his occupation, and that the time should be appropriated to a careful examination, comparison and criticism of the articles exhibited for his inspection. The addresses and speeches should be pertinent to the occasion, and all the exercises allowed should also relate directly to an *agricultural* exhibition.

Why do not the members of the Corn Exchange send up a balloon at their annual meeting? Or the Directors of the Suffolk Mills get up a foot-race on quarter-day? Or the managers of one of the political meetings now so common introduce a "Punch and Judy" company to call away the attention of the assembled multitude from the matter in hand? Any of these would be just as consistent as the trotting or racing of horses, foot-races, the display of military or engine companies, or balloon ascensions on Cattle Show day.

One of two things will happen; the excellent institution which it has cost so much to establish, and which, in many cases, has received the fostering care of the State, will dwindle and die away—or the incongruous and inconsistent leprous spots that have been fastened upon it must be purged away,—they cannot long work in harmony. Such irrelevant matters have no claim upon the cause of agriculture, and have no right to embarrass its movements. We trust that in all arrangements for the future, this holiday of the farmer will be free from every extraneous influence. Let the cause stand upon its own merits, and not saddle upon it a thousand fooleries and vices which tend to degrade it and destroy its usefulness.

#### LIEBIG'S RULE FOR INSURING THE FERTILITY OF ANY SOIL.

There exists a receipt for insuring the fertility of our fields and the permanence of their crops, and which if properly and consistently applied, will prove more remunerative than all the expedients that have ever before been resorted to by agriculturists. It consists in the following rule:

Every farmer who takes a sack of corn or a hundred weight of rape, turnips, potatoes, &c., to the town, ought, like the Chinese coolie, to carry back with him from the town an equal (or, if possible, a larger,) quantity of the mineral constituents of the produce sold, and restore them to the field from which they have been taken. He should not despise the peel of a potato, nor a straw, but always bear in mind that that peel may be wanting to form one of his potatoes, that straw to form one of his ears of corn. The cost of carrying these matters to his fields is trifling, and the investment is as safe as a savings bank, and highly productive withal. The fertile area of his field will, in the course of ten years, be as it were doubled. He will produce more corn, more flesh, and more cheese, without having, on that account, to bestow greater labor and time upon the culti-

vation of his land; he will be less anxious about his fields, and need no longer keep his mind constantly on the stretch for some new, unknown, and imaginary expedient to preserve their fertility in some other way.

All the proprietors of the soil in every great country, (adds Liebig,) ought to form a society for the establishment of reservoirs, where the excreta of men and animals might be collected, and converted into a portable form. Bones, soot, ashes, leached and unleached, the blood of animals, and offal and refuse of all kinds, ought to be collected together in these establishments, and prepared for transport by the society's own officials.

To render the execution of a plan of this kind possible, government and the police authorities should take measures to insure the proper construction of latrines and sewers in towns, to guard against the waste of night soil, &c. This must, of course, be a preliminary arrangement; but when once made, an annual subscription of half-a-florin from every farmer in the land will suffice to call into existence establishments of this kind in every town, and there can be no doubt that these establishments would speedily become self-supporting, if every agriculturist would only make up his mind to act strictly upon the advice here given.—*Liebig's Lectures.*

*For the New England Farmer.*

#### PLOWING OF CORNFIELDS—FALL OF RAIN.

A writer in the *Scientific American* from Kentucky says, "It is a curious fact that the Yankees, with all their ingenuity, have never learned to plow a straight furrow, while every negro in the South will lay off a field, however large, without a bend of a foot in a single row. The furrows are not only straight, but parallel, the last one in a field in a quarter of a mile square always coming out parallel with the fence. A Virginia farmer sixty years of age told me that he never had a short row of corn in his corn-field in his life. In the new States where you see crooked rows you may know you are among people from New England, New York and Ohio, and when the rows are straight you will find that it is a settlement of Southerners."

The above is a good specimen of what some writers can say upon improved plowing and agriculture in general, when they really set about it. We have not been aware before this that there was such a difference between our northern farmers and their Southern neighbors on plowing straight or crooked furrows, and by negroes, especially. But this writer goes on to say, in substance, that he has never yet known a Yankee farmer that had learned to plow a straight furrow. To which I add that I have known several Yankee farmers that learned that art several years ago, and they have not forgotten it to this day. I am aware that, with all our great plows and implements of improved farming, too many crooked furrows are yet seen in our plowed lands. And if the Southern planters and their negroes can learn us, northern farmers, to lay out straight lands and then to plow even and straight furrows, why, then, this is just what we want. This re-

minds me of a story told me some years ago, about a planter giving out directions to one of his plowmen in laying out land to plow.

"Sambo, you see that cow on the other side of the field?"

"Yes, massa, I seed him."

"Well, then, mark her for a *stake*, and then plow right straight to her, and the furrow will come as true as an arrow."

"Yes, Massa, I'll jest do dat ting right off."

Sambo started his team, kept one eye on the cow and while she stood in her tracks it was well; but as she moved along to feed, Sambo had to swing to keep her in his eye. Finally the cow turned another corner, and Sambo, too, as he was bound to plow up to her, any way. At last he brought up at the other side of the field. "Well, is dat what you call straight furrowing 'cross de lot, Massa?" The furrow he had made was much like one of Tristram Shandy's curved lines on blank paper.

But to return to the subject. That there is too much guess work in laying out plowing lands, all plowmen will acknowledge. And if our Southern farmers are always in the habit of laying out their planting lands in measure, or by a tape line measure, then with a good team plow, and plowman that is a workman, they can turn their furrows true and straight. Again, in order to have no short rows in a corn-field, it is necessary that the field should be of equal length on the sides and ends. That is to say, if the field is 60 rods in length on the sides and 30 rods in width at the ends, then there need be no short rows of corn.

But should the field be 30 rods in width at one end, and only 20 rods at the other end, then here is an angle of unequal sides, so that if the rows of corn are marked straight each way, then the short rows of corn must come off on the side marked last. The short rows of corn are not of so much consequence, provided the rows are marked straight; it all depends on whether the field has equal sides or not. The plan of plowing lands in furrows to plant corn by, in order to make straight rows, may be all well enough for our Southern farmers; but I prefer to make use of the "corn-marker" for that purpose, and this is a simple implement which most of our farmers make use of at the present time.

Take a white oak or hickory scantling, seasoned, three inches square and twelve feet long, and in this bore holes with an inch and a half augur, so as to mark rows from two to four feet apart. Then take some well seasoned white oak timber, split out your pins for teeth, and make them about 15 inches in length. Fit the teeth so as to go up through the scantling, say a half inch flush above the top. Then take a small bit, bore through the teeth on top and fasten them with pegs. The teeth should be made larger in the middle, and taper down and round off on the points. Then take a pair of old plow-handles that are strong and mortice into the scantling for handles; next take a pair of old wagon thills, and your marker is ready for work. If your field has oblong sides, begin to mark on the longest straight side first, then the short rows will come off on the side that is marked last, marking the field both ways. The outside teeth of the marker must follow each on the inside mark; this will guage the width of the rows correctly, so that you mark one row less

across the field, than there are teeth in the marker. That there is much advantage in having the rows of corn run straight through the field both ways, all farmers must acknowledge. It lets the sun shine on all sides of the corn rows alike. And then, again, you can cultivate close to the rows of corn without fear of tearing up the hills, as is the case when the rows are in and out.

There is an idea abroad, I presume believed in by many, that for years past there has been a gradual diminution of rain-fall over the country at large. I see that this same idea is now prevalent in some parts of Great Britain and that some prizes are offered to such men and writers as will investigate this subject, by the Scottish Meteorological Society. Now, in regard to our own country, on the subject of rain-fall, it is my opinion when facts are brought out that no falling off of rain has taken place in this country during the past fifty years, or the average fall of that time; also, my opinion is, that the same facts with regard to rain-fall in Great Britain will hold true after a fair investigation of the subject. But I will confine my remarks on this subject, in the main, to this country.

The arguments which the advocates of rain diminution make use of are various. Principal among them are that the cutting off of timber over the country has a tendency to diminish the water in running streams, brooks and springs. This causes less evaporation of moisture to rise in the atmosphere, and so less clouds to form and come down again in rain. This may be true to a certain extent upon new lands, where the growth of wood and timber has been cut off and the soil reduced to cultivation. But still over the old sections of country the amount of surface water in streams, taking an average of ten years together, will remain about the same. Again, taking an average of ten years together, there will be found as much rain-fall over the country as there has been in the past fifty or one hundred years. The grand processes of nature are always at work, and why should they not produce similar results in every generation or decade of years, in the atmosphere, as well as upon the earth's surface? But if it is true that the fall of rain is diminishing yearly, pray how long is it since this work of diminution begun, and when will it end? And, also, how long or what proportion of years will it take to make this country as dry as the Sahara Desert for lack of rain? For if this doctrine is true in theory or principle, this calamity must at last overtake us. It is a well-known saying in regard to the weather that extremes follow each other. This, in general, is a true saying. Hence from November, 1853, to May, 1854, a period of six months, more rain fell, causing greater water floods than were ever before known in all this section of country.

This was followed by a strong drought that set in about the middle of July of the same year and continued till the 10th of September, burning up the surface soil and grass, also killing many trees on gravel soils. Since that time there has been no drought to speak of to injure vegetation. Although for a year past springs and brooks have been very low owing to the fact that through the last winter and spring no long continued heavy rains took place, and so in the spring all streams were low and have so continued till the present

time; still there have been showers and rain enough to keep the grass and crops in a good growing condition; so that on the first of August the surface of the earth was as fresh and green as ever, and looked as well as in June. I can call to mind twenty-five and thirty years ago, droughts such as have not taken place in the past fifteen years at least. I can mention in succession the years of 1832-33-34-35, as being summers of great drought and scarcity of water, especially in the season of 1835, when the drought began in May and continued till the next February. The severe winter of 1835-36 set in with no water in the swamps, so that cattle had to be watered at the wells of which many were dry. So these droughts are not new to this country, but are found to be old acquaintances in all generations.

I was passing over a section of country in the east part of this town, (Derby,) a few days ago, through a by-road that leads into the forest, over which I had passed before when a seven years old boy, almost eighty-five years ago. At that time I remember passing a swamp of some six or eight acres in extent, filled mostly with green flags and large bunches of alder bushes. The flags were as thick and as high as a man's head. This was in the month of August, and men were at work in the swamp at that time cutting flags for chair-bottoms, &c. But when I passed this swamp the other day, what was my surprise to see the flags all gone, probably years ago, the alder bushes were gone, and this swamp, that was, now presenting a smooth crop of clear bog grass. Probably all the improvement ever laid out was to cut the alder bushes, and to open a ditch part way round, which has now filled up again.

I mention this fact to show that the grand processes of nature by washing in soil from the high lands around have made this swamp what it is to-day, scarcely aided by the hand of man. And this leads me to Farmer Hews' theory of soil culture and swamp lands. "What's the use of spending your time to drain swamps, when, if you let 'em alone they will drain themselves in time and save you the trouble and expense, tew. For don't you see that we have got more upland that's dry than we reap. Then, again, its goin' agin natur and Providence tew, tu drain land, and taint right nuther. For you see if Providence had meant tew have the land all dry he would have made it so for us in the first place; I say its agin natur and the Gospel. You see agin that this swamp water is wanted in our hot, dry summers for our cattle to wade in and drink—and for frogs, water snakes and mud turtles to live in and breed in; no, it aint right."

Yes, brother Hews, you have made a good argument for your side on drainage, quite as good as some scientific men make for the opposite side of the question. But, to conclude, probably no year passes by but that some section of the country suffers from drought. In portions of Vermont and Maine, the present season, the farmers are speaking of a parched soil, burnt grass lands, dry streams, and grasshoppers. So, also, in some of the Western States, and more especially in Texas. Again, where the droughts continue for a series of months and years together, the climate is more of a tropical character, like Florida and Texas, than that of our Northern States; when the rain does come, it falls in heavy bodies. Such is the charac-

ter of our summer storms and thunder showers, principally. Finally, I let this anti-rain theory go as I find it, believing it to be a subject which farmers need not trouble themselves about in growing crops; but trust this matter to Providence.

Derby, Vt., 1860.

L. DURAND.

#### A SENSIBLE MOVEMENT.

At the annual agricultural exhibition of the Worcester South Society, at Sturbridge, instead of an address in the church on the day of exhibition, the following questions were propounded for discussion:

1. Can the raising of wheat be made the most profitable crop, of the small grains?
2. Is sufficient attention given to the raising of root crops?
3. Does the society offer sufficient encouragement to the growing of fruit?
4. Will it be expedient for the society to offer premiums on neat stock at the next annual exhibition?

We are glad to see this change in the usual stereotyped programme of our shows; not, by any means, because the addresses on the occasions are not pertinent and instructive, but because, when the farmer takes a part in the exercises himself, he will be just as much more interested and instructed, as he is more interested and instructed by laying hold with his own hands of the practical business of the farm. No man can appreciate and regard a fine fruit or shade tree, as he who planted and tended it in person, and so of most things on the farm. The gentlemen who engaged in the discussion of the first question, either acquired or imparted knowledge which will be remembered and applied many times more than it would have been if delivered in didactic precision, or if listened to coming in that style.

We should be glad if some of our friends would send us a report of that discussion.

*For the New England Farmer.*

#### REMEDY FOR THE POTATO DISEASE.

MR. EDITOR:—Some Jenny Lind potatoes which I have just been digging are badly diseased over the whole field, with the exception of a small spot on which, several years since, a coalpit was burned. As far as the coalpit extended the potatoes were bright and sound, with scarcely a diseased one among them.

Now is it not reasonable to conclude that the particles of charcoal left in the ground preserved the potatoes from disease? And would it not be advisable for those farmers who can have access to such coalpit beds to put a small quantity of the dust in each hill of potatoes at the time of planting, next year, and thus prove its virtues by a fair trial?

S. L. WHITE.

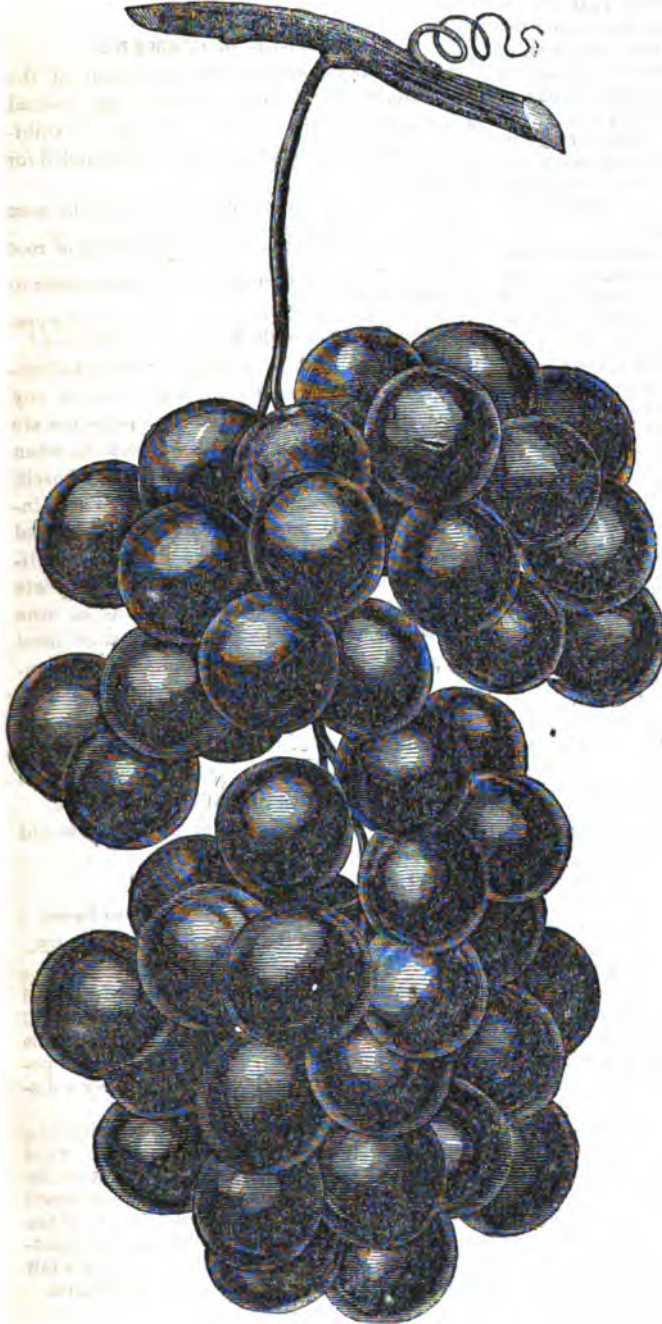
Groton, Sept. 25, 1860.

SHINGLING.—We hope every one of our readers who owns a shingle, or ever expects to have one laid over his head, will attentively read the article upon "Shingling," in another column.

**DRACUT AMBER GRAPE.**

We give below Mr. MANNING's illustration and description of the "*Dracut Amber Grape*," from a desire to bring before the public what

that, in testing new varieties of fruits, it should be left mainly to persons of experience in such matters, and to those who will not feel the loss of a few dollars if they prove worthless.



some good judges of the grape have said to us is a good one, and worthy of cultivation,—and not because we have any knowledge of its merits ourselves. It is not improper for us to suggest to all, shown in 1860. No mildew was visible upon the leaves or fruit the past unfavorable and wet season, while many of the popular kinds mildewed badly, thereby preventing the fruit from ripening and the wood from maturing.

MR. EDITOR:—I send you an illustration of the Dracut Amber grape, with information in regard to it. Also, the season of ripening of a few other varieties the present year. This is a new grape, but little disseminated; origin, Dracut, Mass., from seed. It ripened this season, the week before the great frost, Oct. 1, which destroyed most of the best class of grapes for table use.

The fact of its ripening ten days earlier than the Concord grape, is sufficient proof of merit. It is a strong grower, hardy, great bearer, color amber, or reddish tinge, cluster large, generally compact, but sometimes loose, berries large, and slightly oval; hold on the cluster very well. It possesses the foxy character to a moderate extent. It is a good eating grape, but not equal to a well ripened Concord or Isabella. It is a superior wine grape, making a large amount of light-colored wine in proportion to a given quantity of fruit, and contains nearly four per cent. more saccharine matter than the Concord grape, according to Dr. C. T. Jackson's chemical analysis, made in September, 1859, while testing samples of wine made from different native grapes by Mr. Weber, agent of Patent Office, who was sent out to collect promising specimens of native grapes. Mr. W. took seeds and cuttings of each variety to Washington for propagation and hybridization for future improvement. He examined the vine and fruit in my ground, and was well pleased with it. I caused a quantity of fruit to be forwarded to him, and the result of the test as a wine grape was highly flattering.

I exhibited the fruit at the rooms of the Massachusetts Horticultural Society's annual show, in 1859; it was also



There will be dead wood upon many vines this year, but a good root, with a few good buds, will make the best of growth when planted out.

I find the autumn to be a good time to set grape vines, as a better growth is obtained the following season. Most herbaceous trees and shrubs do equally as well when fall-planted.

I have propagated a stock of vines, and procured the accompanying illustration, which is not overdone, either in size of berry or cluster, as both are frequently larger than the engraving.

I have ripened various kinds of hardy grapes this season, in my nursery. It is better to have a grape that will ripen with a certainty, in this latitude, even if the quality is not quite equal, as a table grape, to some, the crop of which cannot be relied upon. The following list perfected fruit, more or less, before frost, the present season :

Diana, good clusters, some well ripened, Sept. 25.  
 Delaware, not large enough to bear.  
 Rebecca, not large enough to bear.  
 Concord, fine clusters, nearly ripe Sept. 30.  
 Dracont Amber, ripe Sept. 18.  
 Northern Muscadine, ripe Sept. 20.  
 Hartford Prolific, ripe Sept. 20.  
 Sage, ripe Sept. 15.  
 Pearl, ripe Sept. 15.  
 Large Purple, ripe Sept. 15.  
 Strawberry Grape, good for jam, ripe Sept. 25.  
 Clinton, ripe Sept. 25.  
 Warren Seedling, ripe Sept. 20.  
 Early Isabella, new, ripe Sept. 25.

Reading, Mass., 1860. J. W. MANNING.

*For the New England Farmer.*

#### NEEDHAM HORTICULTURAL SHOW.

MR. EDITOR:—As your very just rule precludes all monotonous details of premiums, I will simply give you a little account of the Needham Horticultural Society, held at Village Hall, Needham Plains, on the evenings of Sept. 24 and 25.

Quite early in the day of Sept. 24th, the friends of the Society commenced sending to the hall contributions to the Fair, from the farms, kitchen and flower-gardens, work-shops, dairy-rooms, and the more fanciful domains of the ladies.

Seldom have been gathered, even by societies of more numerous years and more pretentious claims, a finer collection than the Hall presented, when all were duly arranged. It would be difficult to specify any particular department of excellence, for all in their own sphere excelled. There were apples very abundant and large, pears luscious and tempting, peaches, fewer in number, yet not without attractions, grapes reminding one of the clusters of Eschol, tomatoes of so many varieties as to show that these healthful vegetables are fully appreciated, large pumpkins and squashes, causing every one to anticipate family gatherings at Thanksgiving time, potatoes, beets, carrots, cabbages, &c., of no ordinary dimensions, and flowers in such profusion and tastefulness of arrangement as to prove that our citizens appreciate the element of beauty as well as utility. Last and not least in attractions, were the contributions of the ladies, consisting of a great variety of fancy articles, paintings and drawing, cone frames, worsted, bead, leather and wax work, embroidery, &c., all evincing much skill in devising and delicacy in execution.

In the evening, after an opportunity had been afforded to examine the articles on exhibition, the

assembly was called to order by the President of the Society, Hon. E. K. Whitaker, who introduced Rev. E. S. Atwood, of Grantville. Mr. A. made a short, but highly interesting address. He was followed by Rev. Messrs. Green and Willard, of the Plain Village, in addresses appropriate to the occasion. The Society voted to continue the Exhibition the following evening, when the Report of the Committee of Arrangements, an ably arranged document was read by the author, Mr. C. E. Keith, followed by remarks from J. S. Whitaker, Esq., of New Orleans, who congratulated the society on the success of their exhibition, and compared the scene before him from the richness of its fruits and the beauty of its flowers, to the paradise of old. Also by Dr. J. Noyes upon the cultivation of plants and vegetables, and Rev. A. Harvey, of Oakland Institute, upon the richness of the soil and healthy locality of Needham.

H. N. B.

#### PRUNING OF GRAPES.

We have often heard the remark made—"I forgot to trim my grape vines last fall, and now they must run at random, another summer." Let us suggest to thee, friend reader, that at any time after the foliage has all fallen from the vines, you go among them with your twig cutters, and prune, before the weather gets so cold that you will find no enjoyment in the pleasant labor. It is true, that, for several seasons, we have had little encouragement to cultivate the grape, but that must not prevent us from doing what lies in our power to secure a crop—for the next season, and a series of seasons may follow, that will be favorable.

If shade from the vines is desired, let them run profusely, merely cutting off such laterals as you do not want,—but if you wish them kept within your control, do not allow them more than six feet in height, and cut down the side branches to within two buds of the main shoot. By doing this, and pinching off the straggling shoots next summer, the vine may be kept compact, under your control, and with a plentiful application of wood ashes, and a little bone-dust and manure, all your labor will quite likely be amply repaid.

**HINTS FOR THE FARMER.**—Dig your potatoes when the ground is dry, you can then gather them free from dirt; then stow them away under cover, where the frost will not touch them.

Toads are the best protection of cabbages against lice.

Plants when drooping are revived by a few grains of camphor.

Sulphur is valuable in preserving grapes, &c., from insects.

Corn meal should never be ground very fine, as it injures the richness of it.

Turnips of small size have double the nutritious matter large ones have.

Rats and other vermin are kept away from grain by a sprinkling of garlic when packing the sheaves.—*Ohio Valley Farmer.*



## CULTURE OF TREES.

1. The healthful development of fruit trees, as of other living substances, depends on the regular reception of a certain quantity of appropriate food. This food, whether derived from the earth, air, water, or other natural elements, is conveyed through the medium of the atmosphere and the soil. While we have only an indirect and imperfect control of the atmosphere and other meteorological agents, the Great Arbiter of Nature has committed the soil directly to our care and treatment.

2. To this I may add the general sentiment in favor of thorough and perfect drainage, beneficial to all cultivators, but indispensable to the fruit-grower.

3. Not less uniform is the experience of the salutary effects of a proper preparation of the soil for fruit trees, both in the nursery and in the orchard.

These principles are settled in the minds of all intelligent fruit-growers; but they need to be often promulgated and enforced. It should be equally well understood that success depends upon the adaptation of the habits of the tree to the constituents of the soil, the location, and aspect or exposure. A disregard of this principle, and the fickleness of seasons, are among the most common causes of failure, not only among inexperienced cultivators, but amongst professed pomologists.

More attention should be given not only to the location, but especially the aspect of trees. A common error is to disregard the time of ripening.

The sentiments contained in the communication of Mr. J. J. Thomas, at our last session, against the growth of any other crop in orchards, especially against relying upon small circles dug around trees in grass ground, as a method of culture, deserves to be held in perpetual remembrance. Equally injurious, in my own opinion, is the habit of deep digging or plowing among fruit trees, thereby cutting off the roots, and destroying the fibrous feeders, which frequently extend beyond the sweep of the branches. However necessary the practice may be of cutting off roots in old orchards, in the process of renovation, it should be carefully avoided in grounds properly prepared, and where the trees are in a healthy or bearing condition. From experiment and observation, I am persuaded that working the soil among fruit trees, to the depth of more than three or four inches, should be carefully avoided. The surface should only be worked with a hoe, or scarifier, for the purpose of stirring the soil, and keeping out the weeds.

## NEW NATIVE FRUITS.

Changes of opinion have also taken place in regard to the acquisition of new sorts of fruits. Formerly we looked to other countries; now we rely more especially on our own seedlings for the best results. When we reflect upon the great number of new varieties which have, in our time, been raised from seed, and the progress which has thereby been made, no apology need be offered for repeating what has been said in former addresses in commendation of this branch of pomology. It was my first, so it shall be my continual and last advice: "Plant the most mature and

perfect seed of the most hardy, vigorous and valuable varieties, and, as a shorter process, ensuring more certain and happy results, cross or hybridize your best fruits."

What wonders this art has already accomplished in the production of new and improved varieties in the vegetable kingdom! How much it has done for the potato, the turnip, and other vegetables,—producing, from a parent stock of inferior grade, numberless varieties of great excellence! How it has brought forth, from the hard, acrid, and foxy grape of the woods, the delicious varieties that are now obtaining notoriety and extension; from the bitter almond, the luscious peach and nectarine; from the austere button-pear of the forest, the splendid varieties that command our admiration; from the sour crab, the magnificent apples which now constitute the dessert of our tables; from the wild raspberry and blackberry of the hedge, from the native strawberries of the pasture, those superb varieties which crown the tables at our exhibitions. We believe it is now admitted that our native varieties are more hardy, vigorous, productive, and free from disease than most foreign sorts. Thus we have seedling gooseberries free from mildew, and pears that never crack. Why can we not breed out the black wart from the plum? . . .

Truly we live in an age of transition and wonder! The invention of to-day supersedes that of yesterday, and in its turn is to be supplanted by that of to-morrow. No enterprise, however bold, adventurous, or vast, whether the construction of a railroad from the Atlantic to the Pacific; the laying of the mystic wire in old ocean's bed, or threading it through Behring's Straits and winding it around the globe, is too great for the capital, energy, or intelligence of the present generation.

Discoveries, inventions, and improvements equally remarkable characterize all the arts of husbandry. Witness, in place of the forked stick of the ancients, or the wooden plow of our boyhood, the improved iron plow of every model, and adapted to all kinds of soil and situation; and, still more marvellous, the Steam Plow, moving as a thing of life across the broad prairie, turning up its numerous furrows at once, and leaving behind it a wake like that of a majestic ship. Witness, also, instead of the rude hook, the sickle, or the scythe of the farmer, slowly and tediously gathering his crops, our mighty mowing and reaping machine, cutting down its ten to twenty acres per day.

The great industrial pursuit which this Society seeks to promote furnishes testimony of progress not a whit behind the most favored of the arts.

Behold the improved methods of cultivation; the vast number of nurseries and orchards, springing up everywhere, as by enchantment; the novel processes of reproduction, multiplying plants in endless profusion, and as by the stroke of a magician's wand. Witness the interminable lists of varieties now in cultivation, increasing with each revolving year, the restless and anxious desire to obtain everything new and promising from whatever country and sea-girt isle it comes; the refined taste for choice fruits rapidly extending through every gradation of society; the standard of pomology, like the star of empire rising in the east, moving still onward to the west, and ex-

citing the attention and astonishment of mankind.

But this progress results from no supernatural power. It is rather an illustration of human capability, acting in conformity with natural laws, and in harmony with the benevolent designs of the Great Husbandman for the amelioration of society, and the display of His infinite wisdom and love, "sought out of those who take pleasure therein." It exhibits the conquests of mind over matter, the dominion of man over nature, improving, adorning, and elevating her to the highest and noblest purposes of her creation.

Inspired with these sentiments, let us take encouragement, and press on in the career of improvement, ever remembering that study and experience make the man; and that, for the highest attainment and the greatest success, we must depend upon the culture of the mind as well as of the soil.

"Survey the globe through every zone,  
From Lima to Japan,  
In lineaments of light 'tis shown  
That Culture makes the man.  
All that man has, had, hopes, can have,  
Past, promised, or possessed,  
Are fruits which Culture gives, or gave,  
At industry's behest."

Wilder's Address.

#### SMUT IN CORN, WHEAT, AND OTHER GRAINS.

We have either given our corn-fields more special attention within a few years than we ever did before, and thus noticed the large amount of smut in them, or the smut itself has greatly increased. What is smut, and what causes it, and what will prevent it? are interesting and important questions. Some years ago, these questions were pretty thoroughly discussed here and in France. M. Philippar, professor of agriculture in the Normal school of agriculture, Versailles, France, asserts that smut is a parasite plant, belonging to the mushroom tribe of the genus *Uredo*. M. Poiteau declares that it is a local disease, contagious by touch, and not a parasite plant. M. M. Tillet and Tezzien, M. Benedict Provost and M. de Candolle have written much upon this subject, and have all expressed their opinion that it is a parasitical plant, of the mushroom kind, and agree in the main and more essential points with M. Philippar.

A parasitical plant is a plant that derives its aliment from that on which it grows. A *fungus*, a parasitical plant or production of a cellular texture, having no flowers, and deriving its nutriment from the atmosphere, and nourished also from the stalk, stem or spawn. Its propagation is effected by means of small and very curious seeds, *spores*, or *sporules*, enclosed in skinny integuments, called *sporidia*, or spore cases. Animal and vegetable substances in a state of incipient decay, are those which most generally produce fungi, but those of the simplest organization frequently locate on tissues. Of this class,

we may enumerate common mouldiness as being the most familiar and best known. Of this, however, there are two types—the first of which, when examined by a microscope, is found to exhibit jointed threads, and to consist of a cellular structure, the small cavities or cells being arranged "end to end," apparently independent of each other, and capable, under certain contingencies, of reproduction. The second type presents the aspect of a thread-like structure, the spores being elevated on the tops of the threads, or processes, and sometimes very thin and minute capsules or cases, which explode and thus cause the dispersion and dissemination of the seed.

The ordinary puff ball found in our fields is but a fungus, yet in a more elevated phase of development than either of the cases named. There is a determinate figure, and the mass is composed exclusively of cellular tissue. If we cut a puff ball, we shall discover that the interior, or central section is all *spores*, and this as it matures and dries, leaves only the dusty spores, which, in their ripened condition, give character to the ball. We may here remark, that fungi are respectively eatable, poisonous, medicinal and intoxicating, and sometimes luminous. A French writer of eminence, M. Poiteau, declares smut to be a local disease, contagious by touch, and *not* a parasitical plant. In commenting upon the theory of M. Poiteau, a late able writer observes:

"His arguments for and against his opinion are given at great length. We shall, in a concise manner, bring them before our readers; and first, his reasons for deciding against the 'mushroom,' theory. When smut was first declared to be a plant, the labors of the microscope, applied to botany, were very imperfect; matters were declared to be *uredos*, *erinees*, and *erysiphes*, which have since been discovered to be insects' nests or tissular maladies to which the plant was subject. Hence it followed that as microscopic botany became better known, these pretended plants gradually disappeared from the following editions of botanical works. Now these plants have been generally classed in the category as the 'smut;' and as these have been proved to be *not* of the 'mushroom' race, so may smut also."

The opinions of some living agriculturists are cited by M. Poiteau, who considers smut to be "an irritating humor, placed in the plant by the puncture of an insect, invisible;" on account of its smallness; but he gives no proof that this can be the case; he only asserts that such is the opinion of men worthy of being listened to, from their experience and habits of observation. He brings forward the fact mentioned by BOSE, who says, "A most remarkable thing, is that if the thick oil which is taken from smut by distilling it, by holding it over a hot fire is

placed in contact with sound grain, nearly one third of the ear will be affected by smut." M. Poiteau maintains that this is altogether inexplicable, unless smut be contagious by touch; but even allowing this, it is no proof that the former opinions may not be well founded. M. Poiteau says that every experiment tried by M. Philippar, proves as much for the opinion that smut is a disease, as that it is a parasite plant; but admitting this, M. Poiteau does not *prove* what he desires to, viz: that his theory is correct. He also attacks M. Philippar's declaration, that smut is propagated by seed, but we cannot find that he gives any *proofs* that such is not the case. He very fairly cites against himself, the *Memoire* of M. Benedict Provost, in which he distinctly states that he saw the smut change its appearance, and germinate: but M. Poiteau asks if that can be called germination which is nothing more than a change from round to oblong? If all changes which are seen in plants are taken for germination, every vegetable thing in nature should be deemed susceptible of germination. He gives M. Philippar great praise for his zeal and ability, but not the less insists that he is wrong.

We do not profess to give any opinion on the nature of smut, but are anxious to lay before the reader some of the views of others, and to call attention to what seems to us to be an increasing malady in our beautiful and profitable Indian corn crop.

#### INDIAN SUMMER.

At the open window I sit and see

The gorgeous clouds that are passing by,  
And the soft south air is bringing to me  
Perfumes as sweet as in June buds lie.  
Even the bees are humming to-day,  
And I catch the sound of children at play.

Did I not see the changing leaves

Brilliant in coloring as the sky,  
And the reapers binding their golden sheaves,  
I should say the summer had not gone by.  
It seems as if nature had paused to think,  
Before it should reach October's brink.

But with every breath of the scented breeze

There is rustling down a withered leaf,  
And I hear the sighing among the trees  
That is like the prelude to a grief—  
And 'though the sun shines with a splendor like June,  
By this I should know 'tis a fall afternoon.

At the open window I sit and see

Clouds that are passing—hopes that are past,  
And the soft south air is bringing to me  
Memories crowding thick and fast;  
And some of the dreams I recall to-day  
Are swept like the withered leaves away.

At the open window I still remain,

And my soul is vainly trying to see  
Over the losses—on to the gain—  
Knowing how much that gain would be.  
Teach me, O teach me, how to wait  
For the Summer so endless—Heaven so great.

Portsmouth Journal.

For the New England Farmer.

#### THE BIRDS OF NEW ENGLAND—No. 4.

##### HAWKS.

Sharp-Shinned Hawk—American Gos-Hawk—Cooper's Hawk  
—Stanley Hawk—Broad-Winged Hawk.

The third sub-family among the *Falconidae*, the *Accipitrinae* (*proper hawks*), constitutes a well marked group in the Falcon tribe, and is regarded by naturalists as the sub-typical section, and its members are readily distinguished by their long and expanded tails, and short and rounded wings, being often called the *short winged Hawks*. They are a courageous tribe, boldly attacking birds of quite large size, often seizing their prey upon the wing, or by pouncing upon it from above, and frequently rob the farmer of a portion of his young poultry, making amends for the same, however, in the destruction they wage upon the mice. Their flight is swift and strong, and in the days of falconry and hawking, these birds were considerably valued in the princely sports, but were considered less noble than the true Falcons, and were termed birds of hawking rather than of falconry. They are said to be rather sylvan in their habits, preferring wooded countries, and breeding in trees. *Accipiter* and *Astin* are the genera represented in the fauna of New England.

The SHARP-SHINNED HAWK, (*Accipiter Pennsylvaniensis*, Swain; *A. fuscus*, Bonap.) sometimes called the *Slate-colored Hawk*, is an elegant and daring little hunter, and by Audubon has been termed "the miniature of the Gos-Hawk" not only from its general appearance, but from its swift, vigorous and irregular manner of flight, and the velocity with which it dashes upon its quarry. Its habitat seems to be nearly the whole continent, as it has been seen far to the north, and is known to exist in the intertropical parts of South America; it is found throughout the United States, but according to Nuttall seems more particularly to abound in the thinly settled parts of some of the Southern States than elsewhere. Its food consists of small birds, from the smallest in size to the common Passenger Pigeon, mice, reptiles and chickens, the latter of which it will boldly pounce upon in the very presence of their keepers; and Nuttall speaks of twenty or thirty as being carried away by a single individual of this species in as many consecutive days.

The Sharp-Shinned Hawk, provincially known, in common with the other smaller Hawks, as the Pigeon Hawk, measures twelve inches in length, and twenty-one in alar extent; upper parts, dark slate blue, in the adult; under parts white, finely variegated with broad bars of ferruginous. The female is much larger, a fine specimen now before me measuring fourteen inches in length, and twenty-five in extent. The plumage of the young is dark brown above, skirted with ferruginous.

The AMERICAN GOS-HAWK or BLACK CAPPED HAWK of Wilson (*Astur atricapillus*, Bonap.) is generally considered as a rather rare species, at least was so regarded by Wilson and Nuttall. Chiefly inhabiting the more northern parts of the continent, and migrating southward in the autumn, it is more commonly observed in fall and winter than at other times. It is said to be an extremely active and bold bird, sailing aloft in circles, or, when hunting, skimming near the

ground, along fences or hedges, and pouncing suddenly upon its unsuspecting prey. They subsist upon birds, mice, and even moles, and I once caught one in a trap baited with a living chicken. The present species is so closely allied to its European congener, the well known *Gos-hawk*, so highly noted for its feats in hawking, that by many it has been described as the same.

The length of this species is twenty-one to twenty-five inches; breadth of wing, about three feet; plumage above, fine slate blue, beneath, white, most elegantly speckled with fine, transverse, pencilled, zigzag lines of dusky. The Hon. C. L. FLINT, Secretary of the Massachusetts Board of Agriculture, in his last report on the State Cabinet, speaks of having received as many as twenty specimens of the Gos-Hawk during the year, (1859,) from which it appears that they are not so remarkably rare in New England as formerly supposed; and I am quite confident that this Hawk breeds in this vicinity, and that it is often seen skimming over our meadows and fields with a swift gliding flight.

COOPER'S HAWK, (*Astur Cooperi*, Bonap.) a bird named by the Prince of Musignano in honor of WILLIAM COOPER, of New York, is an elegant and quite rare species in New England, though said to be common in the Middle States, particularly New York, in autumn and towards winter. A fine specimen, now in my possession, was shot a few days since while prowling about for chickens, it boldly alighting within a few paces of the house. It seems to be an active, fearless bird, and its depredations among the poultry are often quite annoying. The specimen before me measures nineteen inches in length, and thirty in alar extent. Color above chocolate-brown, darker on the head and neck, where it is edged with rufous and white; below, white striped with dusky.

The STANLEY HAWK, (*Astur Stanleyi*, Aud.) a new species of Audubon, in size and markings corresponds very nearly with the above (*Astur Cooperi*), and is now generally considered to be the same in a different state of plumage.

The BROAD-WINGED HAWK, (*Astur latissimus*, Jar.) by Bonaparte is placed in this genus, though approaching the Buzzards in habits and food, as well as somewhat in form. Sir William Jardine, in his excellent notes to Wilson's work, doubtfully places it in *Astur*, with the Hawks above described; but speaks of it as "one of those birds with dubious and combined characters." Though not abundant, it is occasionally seen in all the northern Atlantic States, particularly in the Middle and New England States, where it is generally resident, and is rarely seen as far south as Louisiana, even in our severest winters. Its food consists of small birds, chickens, ducklings, the smaller animals, and even frogs and snakes; and it is said to be rather sluggish in its disposition. The length of this Hawk, is fourteen inches; breadth of wing thirty-three inches; plumage above, dark brown, streaked with whitish on the head; beneath, white, marked on the breast with pointed spots of brown; female much larger.

The next section or sub-family of the *Falconidae* that we meet, the *Milvinae* (true Kites; *Cymindinae* of some systematists,) is probably unrepresented in the fauna of New England, though a beautiful representative is found in the Southern States in the Swallow-Tailed Hawk (*Naucle-*

*rus furcatus*, Vigars,) and though rarely seen farther eastward than Pennsylvania, has, in a few instances, been captured in the State of New York, yet is sometimes seen in the interior as far north as the 44th degree of latitude. It is a bird of singular form and habits, devouring its prey, whatever it may be, in the air, and subsists largely upon insects. Jardine observes, "I am aware of none that feed so decidedly on the wing as that now described; in everything it will appear more like a large swallow than an accipitrine bird."

The next number, containing an account of the Buzzard (*Buteo*), will conclude the diurnal birds of prey.

J. A. A.

For the New England Farmer.

#### PIANO AND WASH-TUB.

MR. EDITOR:—In the *Farmer* of October 6, in an article headed "Piano vs. Wash-tub," are set forth notions and ideas, rather behind the times, to a part of which I would like to reply. I am not a son of a farmer, or the husband of a farmer's wife, or a husband of any kind. The writer addresses the "dear good ladies," of the present day, and asks them to compare their situation with that in which their mothers and grandmothers were placed; to compare their household appliances and utensils, rude and few, with the improved many of the present day; states that they, (the mothers,) knew no piano but the spinning-wheel, no seraphine but the wash-tub; that the cackling of hens, geese and turkeys, blended with squealings of pigs and lowing of kine, was music to their ears, and that they desired no better: and to sum up, they were considered far below the generality of women. Did they not rear from ten to fourteen fat, rugged sons and daughters and clothe them all, in summer and winter, substantially and comfortably, doing the spinning, weaving and making with their own hands? That they were educated as farmer's wives should be, not to play the piano, or make pictures; but to *spin* and *weave*, *bake* and *brew*, *make* and *mend*, while their husbands would plow and sow, mow and rake, reap and thrash, and in nine cases out of ten, they were contented with their lot.

Now, Mr. Editor, what do we see in all this, but work, work, dig, delve, eat, eat, drink; mere brute contentment? Certainly, no aims to intellectual or social enjoyment, no newspapers—*New England Farmer* included—no pleasant studies, music, drawing, painting, &c., nothing but "work, work, work." I admit, that on a pleasant Monday morning, in a back room, a "rub-a-dub," performed on a wash-board, with a door-yard accompaniment of clucking and cackling fowls, is a pleasing scene; can almost fancy myself looking on a similar one in a particular place in New Hampshire. I think it quite an improvement in the times, as we now have both piano and wash-board in the same house, played by the same hands. I am acquainted with many people, old and young, of both sexes, who obtain their living, and a good one too, by diverse occupations and labor, and are good practical musicians and singers, their singing and playing not interfering with their business in the least; know a young lady who plays the seraphine, can drive four horses, and I have no doubt is a great help to her mother; know another who can get a good dinner,

play the piano while the men are eating, and can teach beside.

Look at our male musicians throughout the country; all are farmers, mechanics, artists, clerks, all engaged in some daily occupation. The "lot" of which Miss Spinster speaks, people will not be contented with in these days; machinery and improved implements of every description have lessened our labors. The tired farmer is not obliged to labor late in the evening, paring apples, husking corn, &c; machines help him do this, giving him most of his evenings in which to enjoy his books, papers, violin, the society of his family, neighbors and friends. If our parents and grandparents were contented with their lot, we have reason to be much more contented with ours, and if we are not, we are a thankless and thoughtless generation.

OLD BACH.

#### ON THE HILLS.

Princeton, October 16, 1860.

GENTLEMEN:—Why do not more of your novelty-seeking citizens come out here and get up higher in the world than they ever stood before? Even the denizens of Beacon Street might do this and find pleasure and profit in it, if pure air and a good deal of it, and renewed health are valuable. Here I am, up, up, I cannot tell how high, and yet old Wachuset looms up *nineteen hundred feet* higher than I am. Sixty feet below the apex are the white tents of the United States Surveying Party, having a good time when they can. Sunday night was a "buster" up there, and made lively work with every thing that was not tied down to peg or rock. The "rains descended and the floods came," and along with them snow and hail, and a breeze that would have started a California clipper through the water at twenty knots an hour. One of the party up there said to me: "The wind blew fearfully that night." They are encamped sixty feet below the top, so that they lead a living spring, which they found half-way between them and the highest point, into the midst of their canvas village.

I came here last evening to have an agricultural talk with the people, which took place very pleasantly to myself, at least, at the Town Hall. I found many of them appreciating the blessings which their occupation confers, and with large views of its dignity and importance. They have established a Farmers' Club, and are entering vigorously upon some of the leading topics of improvement. Some of the young men were earnest in their inquiries as to the best modes of draining lands, as that is to be the subject of discussion next week. Hon. JOHN BROOKS, a member of the State Board of Agriculture, and one of the intelligent and progressive men of the age, has not only the disposition but the means to set many good examples, and he has done so in a highly commendable manner. If he is willing to risk the expenditure of \$25 to \$50 per acre in an

experiment of underdraining, and the experiment proves a successful one, and increases the profits of crops ten to twenty per cent., that example settles the question for all his towns-people who possess similar lands. They need no longer to labor in doubt, but with the *certainty* of success. It is in this light that men of progress make themselves especially serviceable to the world. There are many excellent farms in the town, but my arrival there was too late to afford me any opportunity of looking at their stock, or at the crops they had just secured. The surface of the town is much broken by abrupt hills which are swept by fierce winds during several months in the year, and the roads in winter are often considerably obstructed with snow; but this admirably adapts the land to grazing purposes, so that fine steers, oxen and milch cows are produced abundantly.

With such pasturage the dairy becomes a prominent feature in their agricultural industry, and they produce butter of the most excellent quality, considerable of which, I was informed, is contracted for at thirty cents per pound in Boston market. Large quantities, also, of excellent quality, go to Worcester, where it is always in demand, the good people of that city being well acquainted with the butter-making skill of their neat mountain neighbors. The people of the town are intelligent, industrious and frugal, and look down upon the rest of the world with a wonderful degree of complacency, considering how elevated they are themselves!

Returning from the exercises at the Hall, I had an hour's pleasant chat with my kind host and his wife before a glowing wood fire in an open Franklin stove. The frost was sharp and the wind was up when I went to my chamber, and when fairly "under the cappers," I could not afford to lose at once in forgetfulness the delightful music it made as it swept from the snow-clad mountain behind me down to the world below. So in a dreamy state I laid and heard it sing its wild mountain song, sometimes fancying the sea before me, with its restless and never-ceasing waves trying to wash out the base of old Wachuset, but waking a little, missed the regular cadences of coming and retreating waves, and became sensible that I was in the region of old Boreas and his attendant train. The snow now lies in little drifts under the north side of fences and buildings, the remnant of Sunday night's storm.

My visit has been a pleasant one, for which I am greatly indebted to the attentions of Major S. S. HASTINGS and his kind lady, who took me in when cold and hungry, and set me down to a bountiful table before a good wood fire! Think of that, gentlemen, and believe me,

Very truly yours, SIMON BROWN.

Messrs. Nourse, Eaton & Tolman.

## LADIES' DEPARTMENT.

*For the New England Farmer.*

### DOMESTIC RECEIPTS.

**KETCHUP.**—I notice by your paper of Sept. 29, that "A Mechanic" wishes to know the best way of making tomato ketchup. I will give you my receipt.

Take one gallon of skinned tomatoes, fully ripe, one pint of sharp vinegar, two table spoonfuls of salt, one of black pepper, two of mustard, all ground fine, simmered slowly three hours in a porcelain kettle. Strain through a sieve. It may be used in three weeks, but improves by age. I have some now, that was made one year ago, and it is much better than when new.

**CREAM CAKE.**—Three eggs, one cup of thick cream, one of sugar, flour enough to make it as hard as pound cake, soda and spice as you like.

**FRUIT CAKE.**—Three eggs, two and one-half cups of sugar, one cup of sweet milk, one of butter, four of flour, a little soda, spice and fruit as any one wishes.

**WHITE CAKE.**—Three eggs, two cups of white sugar, one-half cup butter, one cup of new milk, three of flour, two teaspoonfuls cream of tartar, one of soda, a teaspoonful of extract of lemon or rose; dissolve the soda in water.

You may find better receipts, but these are good.

A SUBSCRIBER.

*Prescott, Mass., Oct., 1860.*

### WOMAN'S COURAGE.

No one can have read the statement of the clerk of the steamer, which went down on Friday night, without being struck by his description of the bearing of the ladies. "They were pale, but silent; there was not a cry or a shriek." The fortitude and resignation of men may have failed, but theirs failed not. So is it always in the great exigencies which women are called to meet. When troubles or dangers are but slight, they are more excited and more alarmed than men. But let an overwhelming calamity bury the fortunes and hopes of the husband, or father, or brother, in sudden night, let disease or accident strike him down and stretch him on the bed of keenest suffering, then when strong men's hearts fail them, when their nerves are unstrung, when quaking fear or hopeless despondency takes possession of their souls, the frail, weak woman rises with elasticity and calm determination to the demands of the terrible emergency, and with untrembling hand and cheerful voice hastens to perform those blessed ministrations, for which the might of men was inadequate. How many scenes of danger have we heard described, conflagrations, assassinations, shipwrecks, in which women have with heroic patience and submission bowed meekly to their fate, and have taught the sublime lesson of Christian resignation to the husbands and fathers who were with them. In the hour of trial her weakness becomes strength, her sensibility is swallowed up in faith. There were men of renown in the Lady Elgin, men whose names are known through the wide world, but none of them ever did a braver or more heroic deed than was achieved by those noble women who sat in silence awaiting their death.—*Providence Journal.*

### REARING CHILDREN.

1. Children should not go to school until six years old.

2. Should not learn at home during that time more than the alphabet, religious teachings excepted.

3. Should be fed with plain, substantial food, at regular intervals of not less than four hours.

4. Should not be allowed to eat anything within two hours of bed-time.

5. Should have nothing for supper but a single cup of warm drink, such as very weak tea of some kind, or warm milk and water, with one slice of cold bread and butter—nothing else.

6. Should sleep in separate beds, on hair mattresses, without caps, feet first well warmed by the fire or rubbed with the hands until perfectly dry; extra covering on the lower limbs, but little on the body.

7. Should be compelled to be out of doors for the greater part of daylight, from after breakfast until half an hour before sundown, unless in damp, raw weather, when they should not be allowed to go outside the door.

8. Never limit a healthy child as to sleeping or eating, except at supper; but compel regularity as to both; it is of great importance.

9. Never compel a child to sit still, nor interfere with its enjoyment, as long as it is not actually injurious to person or property, or against good morals.

10. Never threaten a child; it is cruel, unjust and dangerous. What you have to do, do it, and be done with it.

11. Never speak harshly or angrily, but mildly, kindly, and, when really needed, firmly—no more.

12. By all means arrange it so that the last words between you and your children at bed-time, especially the younger ones, shall be words of unmixed lovingness and affection.—*Hall's Journal of Health.*

**ELDERBERRY WINE.**—The quantity of fruit required, is one gallon of ripe elderberries for every two gallons of wine. For ten gallons wine take five gallons berries, boil them in five or six gallons of water, then strain the liquor, and whatever the liquor proves short of ten gallons, make up as follows: Add water to the pulp, stir it about and strain to the rest. Add thirty pounds sugar and two or three ounces hops. Then take three-quarters of a pound of ginger-root bruised, five ounces cloves, one of cinnamon, and put them together in a bag and tie loosely. Put the bag with its contents into the previous mixture, and boil two hours; when quite cool, ferment with yeast as you do beer. In two or three days draw the liquor off into a cask, suspend the bag of spices by a string not long enough to reach the bottom; paste over stiff brown paper. It will be fit for use in two months.—*Boston Cultivator.*

It is well for us that we are born babies in intellect. Could we understand half what most mothers say and do to their infants, we should be filled with a conceit of our own importance, which would render us insupportable through life. Happy the boy whose mother is tired of talking nonsense to him before he is old enough to know the sense of it!





DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. XII.

BOSTON, DECEMBER, 1860.

NO. 12.

NOURSE, EATON & TOLMAN, PROPRIETORS.  
OFFICE...34 MERCHANTS' ROW.

SIMON BROWN, EDITOR

FRED'K HOLDBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

#### CALENDAR FOR DECEMBER.

'O tell me not of fairer lands,  
Beneath a brighter sky;  
Of streams that roll o'er golden sands,  
And flowers that never die!

My native Isle! my native Isle!  
Though bare and bleak thou be;  
And scant and cold thy summer smile,  
Thou'rt all the world to me!



DECEMBER, last pale visitor of the twelve, she comes and scatters the snow-wreath over the roofs of our dwellings, and along our frozen streets—she nips the latest flower that has dared to lift its little head to the sunshine—she drives every living thing under shelter, and bids man seek in-doors for that comfort which he can no longer find abroad. Now we begin to see what a blessed thing it is to have a *home*. Perhaps we used to think, sometimes, last summer, that the birds had a mighty nice time of it, singing up there among the green leaves. No farm, no merchandise, no workshop, no office to trouble their little brains. Nothing to do but fly about among their vast possessions, and get their dinner—which never needs cooking—and then fly back and sing another song! But now we see that we have some privileges which the birds have not. At the first cold wind, the poor things must quit their homes, and fly away—away—nobody knows where—but although it may be to a far pleasanter clime than ours, this perpetual migration does not meet our views at all.

On the whole, we are glad we are *not* a bird. Man, though a working animal, finds a compensation for his labors, and his *greatest* compensation, in the power to establish a permanent home. He may be exposed to cold and hardship through the short winter day, he may have to buffet a driving storm before he reaches his own door, but once there, he feels that it is a haven of rest. To be sure he stands there in the hall looking like a great snow-man, but then it is his wife's hands that help him off with his great coat,—it is his own little bright-eyed girl that stands laughing and dancing while he emerges from his heap of wrappings. She it is who has got his arm-chair and slippers all ready for him close by the fire. By-and-by, when he gets warm, he gathers with his family about the pleasant tea-table, and all are eager to hear what news he brings from the great world without to his little world within, and he, on his part, has been looking forward to this very home through all the busy day. Perhaps he isn't a man of any great importance anywhere else, but he has the satisfaction of knowing that he is the centre and stay at *one* household. "*Trench*" (on the use of words,)—some of our readers may not have seen it—says *husband* means *house-band*, that strong, embracing power that unites and holds together all the family. There are men who seem born with a propensity to rove. They wander over land and sea, and are never at rest, yet often the very motive which sends them farther, is a latent desire to obtain means to found, at last, a pleasant and comfortable home for themselves. In most cases, a man will not expatriate himself if he can help it, and if, by chance, he inherit his father's house, the homestead cot—with what tenacity he clings to the spot. He would not give up these old associations for anything *short* of a home in Paradise!

When the Prince of Wales visited the United States a few weeks ago, he was welcomed with enthusiasm wherever he went. He was followed



by crowds as he rode through the streets of our cities—ladies threw bouquets and waved handkerchiefs at him—men cheered him—he was taken sight-seeing—he was invited to lunch—balls were made for him—and thus day after day—week after week—until, if we may venture to suppose him made of flesh and blood at all similar to that of other mortals, the brains of his Royal Highness must have whirled in confusion. Now, in the depths of our republican heart, we could not help wishing that the programme might have been varied a little. He can see at home more splendor, more diamonds, and as many gay men and women as we could possibly show him here. All this was very well, but it could be no novelty to him.

What idea could he obtain from it of the life of the great multitude of the people? Of that wherein our great strength lieth? We would like to have had him make a "progress" through the quiet villages of New England, to have had him talk a little with our plain country people, as well as dance with our city belles. He should have seen the white church spire rising among the hills, with the school-house and academy near by, and the comfortable but unpretending dwellings of the inhabitants. We could even wish that his Royal Highness might have stepped his foot into one of our meeting-houses, might have visited a district-school—aye, and been introduced to its pretty mistress—that he might have called at the house of some untitled citizen.

These things are American, these things are characteristic, while a ball-room is a ball-room, all the world over.

He did go hunting on the prairies—we are glad of that, and he saw our Falls of Niagara too, in all the right royal majesty of nature, roaring and dashing over their stony walls untrammelled by etiquette, and not introduced by the "Mayor."

Well, the year has almost gone by that brought the young stranger to our shores, and his visit will long be remembered by a friendly people, and will go down to posterity as a matter of history, and the year has made other records too—some public, some private,—the first will find a place in the archives of our country, the latter in the hearts of individuals—but whatever its record has been, it is almost finished now. A few weeks, and we shall bid farewell to its departing footsteps, and welcome the dawn of *Eighteen Hundred and Sixty-One*.

**CATS FREE FROM HEADACHE.**—It is quite wonderful to see a cat jump down heights. She never seems to hurt herself, or to feel giddy with the fall; she always falls on her feet, and these are so beautifully padded that they seldom or ever get broken. I never knew of a cat breaking its leg from an accident, but in one instance, and that was a French cat, which fell down stairs in the

most stupid manner. Why does not the cat get a headache after her deep jumps?—why does she not get concussion of the brain, as a man or dog would, if he performed a similar acrobatic feat? If we take down one of our dry cats' heads off the keeper's museum wall and break it up, we shall see that it has a regular partition wall projecting from its sides, a good way inwards towards the centre, so as to prevent the brain from suffering from concussion. This is, indeed, a beautiful contrivance, and shows an admirable internal structure, made in wonderful conformity with external form and nocturnal habits.

*For the New England Farmer.*

#### "SHINGLING."

**MR. EDITOR:**—One of your correspondents, under the above heading, in answer to "What will make shingles last longer," gives some instructions and reasons which you very justly call "capital;" yet his methods, in part, by which he arrives at those reasons, are not quite so clear as they ought to be.

Laying shingles as they should be requires more mechanical skill or knowledge than it is often supposed to, or else we should not so often see inexperienced boys, and any Jonathans who may happen to be procured for small pay and board, shingling alone with a few meagre instructions, and those being mostly disregarded. But however properly laid, if not properly nailed, the desired object is in a great measure frustrated. In respect to the nailing, Mr. Emerson says:

"However wide the shingles may be, I do not allow the nails to be put more than two inches apart."

**Query.**—Where are the nails to be put in the shingles? I have seen those who would have but one nail in a shingle of any width, and that nearly in the middle; and those who would have but one, and that in one edge; and again, those who would have in a shingle, say six inches wide, three to four nails, and so on in proportion to the width, making, if equally spaced, about as near as your correspondent directs. From his *reason*, aided by my own notion, I infer that he uses but two nails in any shingle, however wide; yet, one holding to using more nails might prefer a nail every two inches, perhaps.

Again, he does "not want the nails drove quite in, or so as to sink the heads," but to "hold up the butts of the next row of shingles." True, it will ventilate the roof, but will it not let the snow and wind liberally through the roof or walls on our New England hills, and increase the liability to their being blown off? If sheathing paper is used, or the interspaces are properly filled with whitewash, paint, or cement, applied upon each course as they are laid, this will be avoided, of course, in a great degree.

Would it not be much better to use a "straight-edge" about as wide as the shingles are laid to the weather, and thus avoid the "dirty work" of which the carpenters complain? But as it is not intended to give my views and experience in this article, but rather to call the writer's attention to the matter so that he may give more light upon this important subject, let this, for the present, suffice.

O. W. TRUE.

*Elm Tree Farm, Maine.*

*For the New England Farmer.*

### OUR TOWN.

MR. EDITOR:—I frequently see communications from other towns, describing their location, their improvements, their general progress, and other matters more particularly connected with such towns, but have never seen anything written from our town; and as a town, I am not aware that anything has ever been published to give us even an introduction to the world. And now, with your approbation, I should like to give, through the medium of the *New England Farmer*, a brief sketch of the business operations in the little town of Fairhaven.

It is a small town, situated in Rutland county, Western Vermont, a few miles from the head of Lake Champlain, and separated by a small stream from the Empire State. Its area is only about fifteen square miles, one-third of which is uninhabited, the soil being somewhat unfavorable to cultivation, but valuable for wood and timber. Its population is a little less than 1400, (being an increase of over 50 per cent. within the last ten years,) a large proportion of which are slaters and other manufacturers.

Agriculture is receiving some attention, especially of late, as you will see by your subscription list, that quite a considerable number of copies of the *New England Farmer* are taken here. Our farmers are waking up to the importance of improving their stock, as was plainly indicated by the exhibition of horses, cattle and sheep at our Town Fair this fall, and to the importance of making and saving manure, deeper and more thorough tillage, building good barns, instead of the coarse, sham things of "olden time," underdraining, &c., though the latter has not, as yet been carried out very extensively, but some have made beginnings.

The slate quarries employ on an average about 100 hands, and produce 1500 to 2000 squares per month. Here let me remark that a square of slate covers ten feet square, or 100 square feet of roof. Slaters generally contract to furnish, transport and lay the slate ~~for~~ so much per square.

Our factories are small, compared with some others in the country, but are doing good business for the amount of capital invested.

We have one forge of two fires, with rolling-mill and nail-factory attached, producing from iron made here and elsewhere, some 1200 kegs, or 60 tons of nails, and as much more of marble-saws, nail-rods, horse-shoe iron, &c., per month; a beautiful saw-mill, grist-mill and tannery; new woolen factory, just ready to go into operation, with some 800 spindles and twelve to fifteen looms.

A paper-mill that has been in operation nearly half a century is now undergoing thorough repairs, and expected to produce twenty-five to thirty tons of paper per month, and will employ fifteen to twenty hands.

Our marble-mill runs twelve gangs of saws, employing twenty-five hands, and cutting equal to 16 or 17,000 feet, two inch stuff, per month. Here I remark that marble-saws are simple plates of soft iron without teeth, used in sufficient numbers to cut up a whole block at once. They work horizontally, and, by the constant application of sand and water, work through a large block in

four to six days. I would also remark that the marble company quarry their own marble in the town of Rutland, where they employ fifty men, at an expense of over \$1000 per month, and that other business men of this town are also doing considerable in other places.

A factory for cutting and finishing marble, and for sawing, cutting and marbleizing slate, has just commenced operations. It promises well, and has already produced some of the finest specimens of that kind of work, all within the space of a quarter of a mile. The Saratoga and Whitehall Railroad passes within a few rods of these works, affording ample facility for transporting every kind of commodity with the utmost convenience.

We have four stores of general merchandise, two of flour, two groceries, one hotel, and a sufficient number of doctors and lawyers.

The village proper is on a level plain somewhat elevated above the river, having a public green of about eleven acres, with a large park in the centre, laid out in elliptic form, enclosed by a fence with posts of marble, and well planted with trees, which already begin to assume the appearance of a grove. Here are four churches, small, but convenient, and neatly finished, and regularly occupied, and another nearly finished. A Town House of brick, some forty-four by sixty-four feet, and another large house of marble, cut and polished, with a large number of smaller ones of wood, are now in course of erection. I should like to speak of some other things, but have already written longer than I intended. H. BRIGGS.

*Fairhaven, Vt., Oct., 1860.*

### VENTILATION OF THE APPLE BARREL.

By this we mean the boring of holes in the head staves of the barrels that will allow the escape of the moisture that is constantly passing off from the newly gathered fruit. We hazard nothing in the statement that one-half the fruit sent to this market this season, so far, has been materially injured from this cause. The effect of confined vapor upon the apple is not at once apparent. The fruit appears uncommonly bright on the first opening—but as the surface dries off, the apple begins to grow dull looking, and if a light skinned apple, in a day or two will present the appearance of half-baked fruit.

But this steaming from confinement not only injures the sale of the fruit, but to the great disappointment of the consumer, his fruit does not keep as he supposed it would, and as the variety of apple he purchased led him to suppose it would. Premature decay is sure to follow as a consequence of this want of ventilation.—*Chicago Fruit Dealer.*

SALT FOR FENCE POSTS.—A correspondent of the *N. H. Journal of Agriculture* set some white oak posts, about twelve inches square, thirty years ago, and on examining them the other day he found them all sound. After setting, he bored into each post, about three inches above ground, with a two-inch auger, at an angle of about 45°, and filled the hole with salt and plugged it up. It took about half a pint of salt to each post. The plugs are yet in, and the posts look as sound as when set. He tried none without salt.

*For the New England Farmer.*

### EGYPTIAN CORN.

GENTLEMEN:—In your regarded issue of the 13th, I notice your remarks headed "Egyptian Corn," concluding as follows, viz: "We refer to this matter to show the results of one experiment with the Egyptian corn, and to ask our friends who 'enclosed one dollar in stamps or currency to Mr. Crandall, and who have grown the Egyptian corn, to inform us what success attended the experiment.'"

I would state, in answer, that *never* seeing your advertising columns filled with gullibilities, and disgusting insertions, I felt a confidence in responding to the notice of Mr. Crandall as contained in your issue of May last, and at once, on reading the same, I remitted the one dollar indicated to the party, accompanied by stamps for the appropriate return. Soon after, I received by mail an envelope containing about two teaspoonfuls of the so called "Egyptian seed corn," with a few words of direction, (printed upon a mere scrap of paper,) and naught further! At once I placed the corn in the hands of the gentleman with whom I reside, (one of your subscribers,) a most intelligent and practical farmer. He prepared some ground forthwith for the reception of the seed, in the very best portion of his farm and manured the same well. Planted four kernels of the corn in each hill, making in all about twenty hills. This planting took place about June 1st, last past, and the hills were well hoed and cared for. The result of all was a very slow coming forth of the corn at all. At last it poked its lazy and attenuated development upward, but gave never an indication of product for a long time. Finally some ears appeared, but "few and far between," I assure you. The last past week the result was harvested, yielding from the entire twenty (perhaps thirty,) hills, a short half bushel of ears of the so called "Egyptian corn," part red and part white, looking as sickly as if it had left home too early. From these we were enabled to secure about twenty-five ears only worth looking at, and with the balance we insulted our hogs by tossing it to them, and a poor mess they had of it, too, you may well imagine. For it was but a short half bushel of stunted, worthless corn that was the rendering, from the all promising Crandall seed of Egypt! The stalks are coarse, wiry, with a sort of saw edge, and rejected by our cattle,—as they are ever accustomed to a better feed, not being of Egyptian descent, and not in any sense familiar with the "leeks and onions" of that region.

A sample of the best ears I could find in all, I send you by express, and you are at liberty to use the same, or aught from my letter, as you may choose. I must only, however, remark in this reply to your request, that I think there must have been two omissions in the grouping of the "Plagues of Egypt," as given to us in the ancient Mosaic records! The first of these I deem to have been this "Egyptian Corn," (if such it be,) and the second the *ancestry* of this intending benefactor of mankind, Mr. Crandall, if he came from "those diggings."

Be assured, Mr. Editor, that Mr. Crandall humbugged your readers most essentially, who sent him their money for his worthless trash. However, this is but the second time I have been deluded

by such puffy advertisements, and in future shall ever deem them as unprofitable, and let them pass. At present, please regard me but as him of whom it was said, "Fool and his money soon parted."

Yet parted not for any "corn"  
That's worthy a description—  
But for a corn—looked so forlorn,  
They christened it Egyptian.

Should you wish any further information as to this very rare cereal, the gentleman with whom I reside, (Mr. John Williams,) will cheerfully afford you the same, and give you the result of its fattening qualities on his swine, who were favored with a homœopathic taste of the same.

EDWARD BRINLEY.

Oak Hill, Oct. 15, 1860.

*For the New England Farmer.*

### WHAT WE FIND IN AN ENGLISH NEWSPAPER.

BY JUDGE FRENCH.

How much a single number of a well conducted newspaper tells us of the condition of the country where it is published! I am led to this reflection by reading the "*Mark Lane Express and Agricultural Journal*," a paper published weekly in London. How significant is every paragraph of the differences between Old England and New England. The number of Sept. 24, 1860, is before us. Let us look a moment at its contents. Here is a little table showing the quantities of "corn" imported into eleven ports in England and Scotland for the week ending Sept. 12th. We must bear in mind that corn in England does not mean Indian corn, but all kinds of grain. The amount for the week is 222,416 quarters, which multiplied by 8 gives the number of bushels 1,779,328! nearly two million bushels of grain brought into those ports in a single week, equal to about 324 thousand bushels per day. This is truly surprising, and we should at once conclude that this must have been an extraordinary week. If, however, we turn to Caird's recent letters on *Prairie Farming*, we shall find at page 9 the following: "During the last year, (1858,) we have imported into this country at the rate of nearly one million quarters (8 million bushels) of grain each month. We have thus, in addition to our home crop, consumed *each day* the produce of ten thousand acres of foreign land." Now ten thousand acres of wheat, at 25 bushels per acre, would give 250,000 bushels, a little short of the daily quantity reported in the *Mark Lane Express* for the single week. Great Britain, then, it seems, consumes all her own grain, and requires a little farm of some three and a half million acres, all in heavy grain, equal to 25 bushels of wheat per acre, to keep her population supplied with food!

No wonder the interests of agriculture attract attention in England. No wonder that her lords and ladies, as well as her agricultural population

express so deep and constant an interest in the crops, the weather and the harvest; for a failure of the crops there brings distress and even famine, while with us no failure has ever been so general, that the want could not be supplied within our own borders, and our only complaint has been of a rise in the price of flour and meal.

#### FARM IMPLEMENTS.

But let us look further into our paper. Here is one of a series of articles upon "Farming without the Plow." This, to one who has seen English husbandry, means much more than others might suppose. The writer advocates not any new Terra-cultor, like that recently patented out West, a sort of rotary digger to claw up the earth, as Talpa suggests, like the claw of a mole, but the use of a class of implements well known in England, but almost unknown here.

If we turn to the advertising columns, we find advertisements illustrated with cuts of scarifiers and cultivators, heavy, powerful implements, with from seven to ten steel teeth, some eighteen inches long, curved forward, borne on wheels two or three feet high, the structure of which at once indicates their adaptation to old, well-tilled fields.

I have seen a scarifier of this description drawn by five horses through wheat stubble after harvest, before any other process. The design was to clear the field entirely of all rubbish preparatory to the next crop, which would be turnips. The long, sharp, shining teeth forced, a foot deep, through the soil, give a fine pulverization, at small expense, for the scarifier, although requiring a heavy team, works a breadth of several feet at once, and thus compensates for the power required to move it.

Upon many of our fields clear of stones and stumps, such an implement, instead of the shallow cultivator in use in New England, might profitably be substituted. We find also cuts and notices of Drills of various kinds, for sowing wheat, turnips, and other seeds. Nearly all the grain in England is sowed in rows or drills, with these machines, drawn by horses. Wheat is drilled from 6 to 10 inches apart, and a breadth of say 8 feet is covered at one operation. In the after-cultivation, horse-hoes, made exactly to match the drills, are drawn between the rows working the same number of drills. A man follows the implement, carefully watching and guiding one hoe, and all the rest of the set are governed by this one, and as the implement goes in the track of the drill, the rows of which are parallel, although not precisely straight, there is little injury to the crop. The turnip and mangold crops are hoed in the same way, four or five rows at a time, with great facility. Horse-hoeing, upon wheat is only practised on light soils, but universally, the wheat

is horse-hoed or hoed and weeded by hand, on all well conducted farms. This skilful use of tools, and thorough cultivation and care, tell of a more perfect husbandry than is any where seen in America, at least in the Northern States.

#### MOCK AUCTIONS OF LIVE STOCK.

Further on, we find several communications on the subject of auction sales of cattle, in which it is charged that many of the pretended sales of short-horns and other animals, so common among breeders in England, are mere shams, in which men of respectable position engage to get rid of their poor stock, by advertising their well known and high bred animals to attract bidders, and procuring the best to be bid in for their own use. The *Mark Lane Express* has contained several articles recently on this subject. From what I know of English gentlemen and English farmers, I should expect to find as much fairness and honor in their dealings as in those of any class in any country. Honesty is an English trait, and character is an Englishman's capital, and if such practices have prevailed there, public sentiment will soon drive them from existence.

#### MARKET FAIRS.

This paper contains regular reports of all the grain markets in the world, agricultural reports from the various counties of the condition and prospect of the crops, reports of the cattle, wool and provision markets, with weekly averages of prices. Fairs are regularly held all over Great Britain, in the principal towns, weekly, monthly, or at other intervals, at which farmers, and others buy and sell all their farm products. I attended several of those fairs, and witnessed the manner of conducting their business, and was struck with the perfect reliance placed upon the seller's representation. Grain is usually sold by samples. The farmer is met by a buyer who accosts him with, "What have you to-day to sell?" or the like. The farmer replies, "So many quarters of white wheat, so many of red wheat, so many of barley." "Have you samples?" The farmer takes from his capacious pocket several small bags of a half-pint each, opens them, and allows the buyer to examine, which he does carefully by feeling, tasting and smelling. The price is named, and agreed on, and the buyer takes the sample and pays the price, and never sees his purchase till received perhaps in Liverpool or Manchester. I was assured that fraud was almost unknown in these sales, and most of the grain sold in the country changes hands in this way. Can we not profit by this example? The farmer wants free trade and an open market, in order to protect himself. In this country, an agent from the city slips round before harvest, and bargains privately for all the wheat, or wool, or apples, for all

the butter, cheese, poultry, and everything else, at the farmer's door, and monopolizing the article adds a frightful commission, and giving the farmer the lowest prices, compels the consumer in the city to pay the highest prices. Thus both producer and consumer, by being kept apart, support a large class of middlemen who wax fat at their expense.

If any man doubts of these things, let him try the buying and selling price of any of these commodities, in Quincy Market, in Boston, any day, and he may learn. Market fairs we want and must have, regularly, in all our large towns.

Much more might we learn of the *Mark Lane Express*, had we time and space, but between text and commentary, our sheet is already filled, and we must await a future opportunity.

*For the New England Farmer.*

#### AUTUMNAL SHOWS—APPROVAL.

I like the tone of your article in the weekly *Farmer* of the 13th October, headed "Autumnal Shows," wherein you give an account of the New Hampshire State Agricultural Fair. It would answer for a description of some local fairs, held recently in our region, at which agriculture, or what properly pertains to its true interests, was entirely in the back-ground, and a secondary matter—but horse-races, raree shows, Yankee peddlers, fairs, and the like, were first and foremost.

If the time has come, as some of the officers of our agricultural societies seem to conclude, that fairs cannot be sustained, except by the aid of these things, so utterly foreign to every agricultural interest, for one, I should be willing to have them cease at once, unless they can be sustained wholly upon their own merits.

If I pay my quarter for admittance inside of what are termed the fair grounds, it somewhat grates upon my ears to be assailed immediately upon entering the enclosure, to expend another quarter for the purpose of witnessing the wonderful performance of the noted "Ethiopian minstrels, direct from New York," or to view the "largest living snake in America," or the "fat baby," or the "what do you call it." No, Messrs. Editors, this is not what I bargained for, and I wholly object to its being thrust upon my notice in this underhanded way.

Seriously, I think the public will soon insist that these things be purged from our fairs, or, as an institution, they must go down, and their primeval usefulness be lost. W. J. PETTEE.

*Salisbury, Conn., Oct., 1860.*

#### TO GET HORSES FROM A STABLE ON FIRE.—

Mr. ELISHA FRENCH, of Braintree, Mass., has invented a means of unfastening and taking horses from their stalls when the building in which they are kept is on fire. The contrivance, in model, looks to us as though it would be useful. He says it is so constructed that a person may stand at the outer door and unfasten and lead a horse out without exposing himself in the least to injury.

#### THE OLD GRIST MILL.

The grist mill stands beside the stream,  
With bending roof and leaning wall,  
So old that when the winds are wild  
The miller trembles lest it should fall;  
But moss and ivy never sere,  
Bedeck it o'er from year to year.

The dam is steep, and welded green;  
The gates are raised, the waters pour,  
And tread the old wheel's slippery steps,  
The lowest round forevermore;  
Methinks they have a sound of ire,  
Because they cannot climb it higher.

From morn till night, in autumn time,  
When heavy harvests load the plains,  
Up drives the farmer to the mill,  
And back anon with loaded wains;  
They bring a heap of golden grain  
And take it home in meal again.

The mill inside is dim and dark,  
But peeping in the open door,  
You see the miller fitting round,  
And dusty bags along the floor;  
And by the shaft and down the spout,  
The yellow meal comes pouring out.

And all day long the winnowed chaff,  
Floats round it on the sultry breeze,  
And shineth like a settling swarm  
Of golden-winged and belted bees;  
Or sparks around a blacksmith's door,  
When bellows blow and forges roar.

I love my pleasant, quaint old mill!  
It 'minds me of my early prime;  
'Tis changed since then, but not so much  
As I am by decay and time;  
Its wrecks are mossed from year to year,  
But mine all dark and bare appear.

I stand by the stream of life:  
The mighty current sweeps along,  
Lifting the flood-gates of my heart,  
It turns the magic wheel of song,  
And grinds the ripening harvest brought  
From out the golden field of thought.

#### APPLES.

There is scarcely an article of vegetable food more widely useful and more universally loved than the apple. Why every farmer in the nation has not an apple-orchard where the trees will grow at all, is one of the mysteries. Let every family lay in from two to ten or more barrels, and it will be to them the most economical investment in the whole range of culinaries. A raw mellow apple is digested in an hour and a half; whilst boiled cabbage requires five hours. The most healthful dessert which can be placed on the table, is a baked apple. If taken freely at breakfast with coarse bread and butter, without meat or flesh of any kind, it has an admirable effect on the general system, often removing constipation, correcting acidities, and cooling off febrile conditions, more effectually than the most approved medicines.

If families could be induced to substitute the apple—sound, ripe and luscious—for the pies, cakes, candies, and other sweetmeats with which their children are too often indiscretely stuffed, there would be a diminution in the sum total of doctors' bills in a single year sufficient to lay in a stock of this delicious fruit for a whole season's use.—*Hall's Journal of Health.*

### A RIDE ON A PATENT CARRIAGE.

Several years ago, while passing among the agricultural machinery at the State Fair in Vermont, our attention was attracted to a *winnowing machine* of singular construction and power, and we immediately sought out the inventor, who set it in operation and explained what he considered its advantages over other winnowers. The notes then taken of that and some other articles were lost, and no opportunity until now has since occurred for us to speak of it. He calls it a "Fanning and Assorting Machine," for separating all kinds of grain, seeds, and pulse, dividing the large and earliest ripened for seed, from the smallest and medium-sized. It is as remarkable for its velocity of operation as a *winnower*, as it is for its accuracy as a separator.

One of our neighbors having a quantity of barley in the chaff, we are told that Mr. Nutting, with one of his machines only three feet and two inches long, winnowed it up for him at the rate of *seventy-two* bushels per hour, and that, at the recent State Fair at Manchester, he winnowed rye at the rate of 100 bushels per hour, and at another place, India wheat at 78, and oats at 120 bushels per hour! As a winnower and separator combined, we have seen nothing equal to it.

But we have almost lost sight of the patent carriage, as we had of its inventor, until he gave us a call the other day, and invited us to ride with him, which was accepted, and proved an agreeable one. The peculiarity of this carriage consists in the novel construction and arrangement of the springs and draft-rods, whereby the usual rocker, perch, reaches, braces and hinges, with their connecting plates, bolts and rivets are *wholly dispensed* with, thus diminishing the *weight* about 15 per cent., and the *cost* about 10 per cent.

The motions of the carriage were decidedly easy and pleasant. While it seemed more elastic than the common carriage, it also appeared to be more firm and steady in its motions, and retained its position better, scarcely swaying over at all when making the shortest turns, or having all the load on one side.

The inventor states that these improvements have been in use more than four years, and judging from this trial, he believes the carriages constructed with them more durable than any other in use. The improvements are applicable to any kind of carriage, with two or four wheels.

We noticed, also, that he has a simple, yet effective method for retaining the tugs upon the whiffletree, instead of the leather string usually in use.

**THOMAS' DRAINING PLOW.**—An interesting account of the Draining operations at "The Meadows," the residence of C. S. Wainwright, Esq.,

lately appeared in the *Tribune*. Mr. W. has already, it appears, put in five miles of tile drains, in addition to an equal extent of stone drains laid down before tile could be had in this part of the State. He is constantly extending his system of drainage, having now 10,000 tiles, it is stated, as a first installment in a new portion of the meadow; and, remarks the writer, "the opening of the ditches is greatly expedited by the use of a surface plow and Thomas' draining plow—a simple but effective subsoiler that disturbs the soil at a depth of twenty inches or so beneath the surface. In half a day, with two men and two pair of horses, Mr. Wainwright started drains for 9,000 tiles, one spit deep, leaving the remainder to be dug with the draining spade."

### FALL AND EARLY-WINTER CARE OF SHEEP.

Probably no part of farm stock pays so liberally and promptly for care and attention as do sheep. The difference of one pound of wool per head, at shearing time, would be regarded as an item of no small importance in figuring up the value of a year's clip from a large flock; yet there is often a much larger difference than this in the income of flocks, resulting from the manner of feeding, housing and tending. Sheep may have good pasturage in Summer, and good attention after the winter season has fairly set in, and yet suffer for want of proper care during the cold storms of Fall and early Winter, and from an insufficiency of food "between hay and grass." The following remarks which we extract from the *Michigan Farmer*, are timely, and to the point.

There is no season of the year when sheep are more liable to lose nearly all they have gained, than during the Fall and early Winter; and if they do, there is an end to the hopes of a crop of wool. For the want of food has the effect of stopping the growth of the wool, and the moment the growth is stopped, the end of the fibre is completed, a change takes place, it becomes dead, in a manner analogous to the stem of ripe fruit, and a renewal of good feed after these months, and after the growth of the wool has been once stopped, only prepares the skin to send forth a new growth that pushes off the old fleece, and causes it to be lost before shearing time. The cases are not unfrequent, when we have been told by the owners of flocks of sheep, which were shown in a very tattered condition in the spring, that they did not know what had got into their sheep, they "had fed them grain ever since February, or perhaps since New Year's;" it could not be poor feed that had caused the loss of the fleece. But in fact the harm was done perhaps before New Year's. The sheep had been allowed to lose their condition in November and December, the growth of the fleece had been arrested, and the interior works of the skin that produced the pile of wool had been stopped for want of supplies. When the works were again set in motion by sufficient supply of food, they produced a new crop, which did not connect with the old one. Nothing is more evident from this than that the economy of the

wool-grower consists in keeping his sheep well fed during the early part of winter, and also well protected from storms, for it is plain from the fact that wool begins to grow even on poorly kept sheep, as soon as the temperature of spring permits the animal economy to divert some of the supplies from being consumed in keeping up the mere vital organization, to the increase of the fleece, that heat has as much to do with the growth of wool as with the growth of plants. Hence we say, give sheep protection at an early date in the beginning of winter, if you desire to keep the fleece in full growth during the cold season.

#### THE HUMAN BODY.

When we have gained some slight knowledge of the wondrous mechanism we name the body, how multitudinous its combined actions, how easily the disturbance of one will affect the healthy action of the rest, and how recklessly we disregard the plainest rules of health, wonder at a few men having succumbed in the course of an intense intellectual life ceases at once, and a new wonder emerges—wonder that any man can live this life, and retain his faculties in healthy activity. The very predominance of the nervous system implies a predominant activity, and this is liable to be stimulated to excess by two potent tempters: ambition, eager to jostle its way through energetic crowds; and fascination, which lies in intellectual labor, the brooding *storge* of creation, the passionate persistence of research. These tempters hurry men into excess. Men who live much by the brain have seldom the courage to be prudent, seldom the wisdom to be patient. In vain the significant words of warning become louder and louder; in vain the head feels hot, the ears are full of noises, the heart fluttering and thumping, the nights sleepless, the digestion miserably imperfect, the temper irritable: these are nature's warnings to desist, but they are disregarded; the object of ambition lures the victim on, the seduction of artistic creation, or of a truth seen dancing like a will-o'-wisp, incessantly solicits him; he will not pause—at length he cannot pause, the excitement has become a fever, the flame that warms destroys him: madness arrives. Sad this is, and would be infinitely sad if there were no help for it, if the very glory and splendor of the intellect were necessarily allied to its infirmity and ruin. But it is not so. Men cannot transgress nature's laws without incurring nature's penalties.

**HOW TO PLANT WILLOW.**—Mr. Skean gives the following directions in the *Farmer and Gardener*. "The proper time to plant is before the sap starts in the spring. Take your limb or pole, point it with a keen hatchet, and having made a hole with a suitable crow-bar, insert the pole, tapping it on the top with a mallet to make it firm; or, what is equally good, ramming the ground firmly around it with a common post rammer. The pointed end should be inserted, if possible, until it reaches the water, otherwise they will not thrive so rapidly. The willow succeeds best where the water is fresh, and not stagnant."

*For the New England Farmer.*

#### CORN-FIELDS AND THE BLUE JAY.

MR. EDITOR:—In perusing the communications of your ornithological correspondents it has sometimes occurred to me as a little strange that no one, so far as I have observed, has had anything to say respecting one bird which, from its predatory habits, is at this season a great pest to the farmer. I allude to the Blue Jay or Jay bird, as he is called by some. While the petty pilferings of the robin upon cherries and currants have been fully discussed and commented upon, the more important depredations of the Jay upon our corn-fields have (perhaps from being considered an unavoidable evil) been passed over in silence. I think one bushel an acre is a low estimate of my average loss every fall by their plundering,—rather a heavy per centage upon the product of our light lands hereabouts. Not content with the supply of their present wants, they are said to lay up a store for the winter, which I believe to be a fact, as, while at work in the woods, I have found corn stuck into holes and under the loose bark of dead trees, which I set down as their place of deposit. Just now, whole flocks of them are almost constantly on the wing betwixt the corn-fields and their haunts, filling the air with their discordant screams,—and they keep steadily at work so long as an ear remains unharvested. I consider them a much greater plague than those who pull corn in the spring, as I know how to prevent their operations, but I confess I do not know how to stop the Jay, unless by shooting, and it would require three or four in different parts of the field, as he is by no means bashful, and this would not pay. If you, or any of your correspondents, know of any redeeming points in his character, I shall be glad to be informed of them. At present I consider him an unmitigated thief. If every one loses in proportion all over the country he inhabits, the amount will be no trifling item.

Rochester, Oct., 1860.

A SUBSCRIBER.

**DEAD HORSES.**—From two to three hundred horses are supposed to die in this city every week, and the average value of the carcass is about \$10, yielding about 1½ lbs. of hair for cloth, about 30 lbs. of hide, 6 lbs. of hoofs and tendons, for glue and buttons, 160 lbs. bone, made into snuff-boxes, knife-handles, phosphorus and superphosphate of lime, and 60 lbs. of blood, yielding prussiate of potash. In addition, it is suspected that a portion of the meat finds its way into our markets; that the baked heart and liver season a good deal of coffee; and that the intestines are used as skins for sausages. Nevertheless, our city pays a large sum annually for the removal of these valuable materials to Barren Island.—*N. Y. Sun.*

**JERSEYS AND OXFORDS.**—The sale of Jersey cows and Oxford Down sheep, advertised in the *Farmer* three or four weeks since, took place at Mr. Fay's farm on the 5th instant. The Jersey cows sold for \$100 each, as an average, and the grade Jerseys, \$46. The sheep averaged \$10 per head—one Oxford Down ram, three years old, bringing \$51.





THE FRIZZLED FOWL.

This fowl, more curious than useful, is said to be a native of Japan, and other parts of Eastern Asia, and is frequently called the "Friezeland fowl," from confounding the proper term *frizzled* with Friezeland. Captain Steadman has observed, in his "Voyage to Surinam and the interior of Guiana," that the natives rear a very small species of fowls whose feathers are ruffled, and which seem to be natives of that country.

"This fowl," says Layard, in a letter from Ceylon, "is called by the Ceylonese *Caprikukullo*. It is found here but rarely, and the natives say they came from Batavia." Sonnini and Temminck agree that it is a native of Southern Asia, but that it is domesticated, and thrives well in Java, Sumatra, and all the Philippine Islands. It is the *gallus crispus* (Frizzled fowl) of Brisson.

Martin says, "this breed is originally from Eastern Asia, and is often seen in Java, Sumatra, and India. It is a new variety, and not a distinct species, as some have supposed." It is occasionally met with in this country, but is not common. It is called by some "French fowl." It takes its name of *frizzled*, from the feathers—with the exception of the tail—being turned or curled towards the head, giving it the appearance, as has been facetiously remarked, of having been "drawn through a knot-hole." Here, at the north, our climate is even too severe for the grown fowls. They are tender—the feathers do not afford protection against wet, and they are unable to bear exposure. "The open, ruffled appearance of their feathers," says another writer, "suggests the opinion that they must be unsuited to our climate; but those best acquainted with them inform us that they are hardy, and do not suffer

more than other fowls from the weather of this country. They have the power, it seems, to bring their feathers close together during the occurrence of rain.

*Characteristics.*—Temminck states that the prevailing color of the wild race is white, and that in these the legs are smooth; but there are many specimens variously colored with black and brown, and some of them have feathered or booted legs.

The cock has a beak much hooked; hackle slightly tinged with yellow; comb cupped and toothed; ear-lobe white; feathers over the entire body white, and projecting from being curved back from the body, so as to give the bird an appearance of being ruffled, and of having its feathers rubbed in the wrong way; tail ample and well sickled; legs bluish; height 18 inches; weight 4½ pounds.

They are not good layers, and their eggs average little more than 2 ounces in weight. The hens are good mothers, and the chickens are hardy. Though small, they are good table fowls.—*Bement's Poullerer's Companion*.

**DROUGHT IN MINNESOTA.**—A correspondent of the New Hampshire *Journal of Agriculture*, writing at Winona, Min., Sept. 3d, says: "To-day I have been back into the country, sixteen miles. Wheat is in abundance, and is the principal crop. The drought is very severe on the rolling prairies. At one hotel, in Stoton, they are obliged to use brook water, and to draw even that five miles, for both man and beast."

### A PROFITABLE GRASS FARM.

A correspondent at Palmer, says an exchange, gives us some interesting facts respecting a celebrated grass farm in Palmer, Mass., owned by B. Franklin Morgan. The farm comprises 400 acres, and is adapted to both mowing and pasturage. A meadow of fifty-five acres is represented as being unequalled in New England, or the United States. It averages nearly four tons per acre at the first crop, and produces at the second two to three tons per acre. The best of the meadow has produced five tons the first crop. The entire crop per annum is over 200 tons. The meadow is top-dressed either every year, or every other year. Our correspondent adds:

As I rode over it, it was apparent that the crop of grass now standing would yield two tons of rowen per acre, which is not to be cut, neither is it to be fed much by cattle. It is the most productive piece of land for the labor bestowed upon it, in New England.

Mr. Morgan keeps 150 head of cattle, fifteen or twenty horses, some sheep, and sells about 100 tons of hay per annum. Of his 150 head of cattle, 130 are cows, 90 of which are in milk now. He supplies the State Alms-house with milk, a very convenient market, as the grounds thereof are contiguous to his farm. His pastures are good, being a deep loam, producing, when tilled, great crops, and heavy grass when seeded down. Thus have I sketched the best grass farm, considering the area that is mowed, in the United States. Let farmers consider for a moment, that the average crop of hay in Massachusetts is less than a ton per acre, while Mr. Morgan's farm yields more than three tons per acre under its present cultivation. He occasionally turns this meadow over, manures it and re-seeds it, keeping it in grass all the time, or the principal part of it. Mr. Morgan has several farm-houses located over his farm, where his help are accommodated with homes, food and raiment."

**PERVERSION OF AGRICULTURAL FAIRS.**—The editor of the *Illinois Prairie Farmer*, in giving a description of some four or five country fairs which he had attended, laments that the "sports of the ring," "negro minstrels," "jewelry lotteries," "eating and drinking booths," are becoming the most *attractive* features of these agricultural festivals. At one fair he was told that there were twenty of these jewelry gambling establishments on and adjacent to the grounds—at least a dozen of them inside—at which the purchaser of some trifling article was entitled to a shake of loaded dice for a pin, a watch, or some other glittering but valueless bauble. These stands were crowded all day, while the various legitimate departments of the exhibition were sadly neglected. About the liquor booths there was a constant bedlam, an incessant flow of profane language, and occasionally fighting and disorder. "One valuable life," says the editor, "was sacrificed

on the grounds of the Champaign county Society, the day before we were there, by a knife in the hands of an intoxicated man." We are sorry to read such accounts of farmers' exhibitions at the West, and hope that societies, both here and there, will be careful in making arrangements for future fairs to prevent the repetition or occurrence of all such disgraceful scenes. They must be prevented, or they will most assuredly prevent the attendance of farmers and their families.

### ACTION OF FROST UPON SOILS.

The soluble part of the soil is the inorganic food of the plant. Rain water cannot come in contact with the soil, or even with a gravel heap, without dissolving some of it. Expose almost any stone, or handful of gravel, washed clean, to the action of a quart or so of rain water for several days, and upon evaporating the water, poured off carefully from the stones, it will be seen from the whitish residue left that a portion had been dissolved. Now let these same stones be exposed, covered or partly covered with water, in a saucer, to the action of frost, setting them out of doors for two or three snapping cold nights, taking care that they thaw by day. Pour off the water, rinsing with fresh, and evaporate as above, and it will be seen that a very much larger quantity has come into solution. The reason is, that all stones, being somewhat porous, by the action of the frost their outer portion is broken up, scaled and fissured, and a vastly greater surface is exposed to the action of the water, even though this fissuring is not visible to the eye.

*Application.*—When land is exposed to alternate freezing and thawing, the same effects must take place; and when it is thrown into ridges in the fall, these effects are produced more conveniently than in any other way.

Snow will lie unthawed between the ridges, ensuring a cold temperature, and the tops of the ridges will, unless the fall of snow is very heavy, be exposed to the sun, and will thaw by day. Thus a considerable portion of the soil during a great part of the winter, will be alternately frozen and thawed daily. This effect on many soils, especially those of a heavy clayey or gravelly nature, will be equal to a dressing of manure.—*Homestead.*

**ADVANTAGES OF DRAINING.**—There has been a severe drought in Texas, during the past summer, and the editor of the *Working Farmer* calls the attention of cultivators to one of the advantages of draining, as follows:

We hope our Texan friends will observe post holes, and spots where deep tap roots have been taken from the soil, and see whether those spots are not less severely affected by drought than others. We have seen in a grass field during drought, green tufts existing only where an old fence had been, and the deep post holes had filled up by washings, leaving the loose earth in which the air could enter and deposit moisture; and this, too, long after the removal of the old fences.

**MILK—ITS USES.**

A few evenings since we heard an experienced physician assert, that "a child could be healthfully nurtured on arrow-root." This more nearly concerned his vocation than ours; we did not contradict him, but listened under the hope of being instructed by his arguments. It proved, however, that his views were entirely empirical. Upon turning to the analysis of arrow-root, we find that it contains no phosphate of lime; in examining the composition of milk, we find it does contain this necessary element, and feel inclined to agree with St. Paul, that milk for babes is a proper aliment. We should rather our friend, the Dr., prescribe for his own child than for ours; and notwithstanding the proverb that we should "love our neighbor as ourself," if we contemplated devoting a pound of arrow-root and a gallon of milk to the children of our neighborhood, we might be tempted to ignore the former and use a goodly portion of the milk at home.

The bone-making principle in children, as well as in other young animals, is highly important in the earlier stages of growth. Every farmer knows this, and it is practically illustrated in sections where phosphate of lime is deficient in the soil, and therefore in the crops. We might as well attempt to build a house of flexible material, as to nurture an animal organism with substance that will not furnish the bone-making element; for not only is the rigidity of the bone consequent upon the presence of phosphates in the food, but the strength of the membranes is due in a degree to the same cause.

There can be no doubt that the sustenance furnished by the healthy mother is in a better condition for assimilation than that supplied from artificial sources; and thus for the infant the milk of the mother is more valuable than that of the cow. The phosphate of lime it contains is more progressed, and will be more thoroughly assimilated.

Our medical friend, it is to be hoped, will review his rationale as to the value of arrow-root. We believe that thousands of infants have been hurried into eternity by the use of arrow root as an aliment; and if they have escaped an early death, it has only been to wear out an unsatisfactory life for the want of the early formation of the proper organism.—*Working Farmer.*

**THE LOVE OF FLOWERS.**

No man can cultivate too earnestly a hearty love for flowers. We may not measure the value of them as we measure merchandise, for the influence flowing from them is ethereal and intangible; yet not more necessary is pure air to a healthy growth and broad development of body, than is a loving communion with these "sweetest thoughts of God," needful for all true upbuilding and expansion of the mind. The notion that it is a weak and feminine thing—a thing for women and children—to interest one's self in flowers, is utterly false. One of the most humanizing, and therefore noblest, things in the world, is a devout study of these beautiful works of God. There are granite peaks lifting themselves, bare and bald, with forbidding aspect, which though clothed with glandeur, are nevertheless the unloveliest objects in nature. There are other peaks which have as

much of majesty, yet nestled in whose rifts, and climbing up whose sides, many-colored flowers unfold their beauty, and by their soft hues relieve the sternness of the dull, harsh rock. He is the truest man whose character thus combines strength and conciliating tenderness—whose principles are firm as mountains, yet at the same time are always adorned by the verdure of a gentle charity. From no source can man gather so many gentle thoughts and unpolluted feelings, as from intercourse with flowers. If the Infinite is ever turning from the care of circling worlds to the adornment of the violet, surely it cannot be beneath the dignity of man to follow his Maker with a reverent step, and learn the lessons which he has written for him in the humblest flower.—*W. Hoyt, in Rural New-Yorker.*

*For the New England Farmer.*

**MARTHA'S VINEYARD AGRICULTURAL SOCIETY.**

MR. EDITOR:—Having noticed a request in your paper that some one would give you a short description of the several agricultural fairs as they were held, and not being aware of your having a correspondent on the Vineyard, I have concluded to send you a few items concerning the *Third Annual Meeting of the Martha's Vineyard Agricultural Association*, which was held on the 15th and 16th of the present month. This society is as yet in its infancy, consequently much could not be expected of it. The Fair was in many respects superior to either of its predecessors, yet there is much room for improvement.

On the first day the grounds were devoted to the exhibition of fat cattle, sheep, swine and poultry. The show of fat cattle was unusually good. The sheep were not numerous. Among them were two bucks which I understood were brought from China; one of them had four horns. They were covered with a coat of hair instead of wool; and in my opinion better deserved the name of goats than sheep. During the exhibition of the swine, my attention was drawn to some very fine pigs from four weeks to two months old. The show of poultry was very small.

On the morning of the second day of the Fair I was much gratified in witnessing the fine display of horses and colts. I was particularly interested in the colts, some of which in a few years bid fair to equal, if not surpass, any of the horses imported from Vermont.

In the hall I observed huge pumpkins and squashes, long ears of corn, samples of wheat, and other vegetables, which I think no society in the State would be ashamed to place upon its tables. The ladies' department was not contributed to as largely as would be desirable to have it. There were some articles, however, which reflected great credit on the skill and taste of those who manufactured them. The most attractive were several bouquets of prettily formed wax flowers, that almost equalled nature. On one of the tables, in a conspicuous position, was a very large shoe, said to be seventy-six years old, which, when placed beside one of the present day, would show not a little improvement in appearance, though perhaps the former would be the most durable. On the opposite end of the table was a brick on which was the impression of a child's

foot. This brick was recently taken from the chimney of a house built more than a century ago.

On the afternoon of the second day the people assembled in the hall above, to listen to the speeches, which were very entertaining. The President, Mr. Thaxter, of Edgartown, was prevented from being present by sickness. His place was filled by Dr. Pierce, of the same town. He congratulated the farmers on the bountiful harvest, which had been as a reward for the labors of the past season. He was followed by several other gentlemen who were, with but one exception, professional men.

Why is it that there are so few practical farmers to speak on such occasions? Is it for want of education? With the present advantages enjoyed in our common schools, the young farmers, at least, ought to be as capable of speaking upon agricultural topics as the young physicians.

North Tisbury, Oct. 19, 1860. H. G. N.

#### NATURAL LIFE OF THE HONEY BEE.

The majority of persons who have the care of bees, entertain the idea that the working bees live many years. Their conclusion is drawn from the fact, that colonies sometimes inhabit the same domicile a long period—fifteen or twenty years—never thinking that as fast as they die off naturally and from other causes, they are continually replaced by a new progeny. The natural life of the honey-bee worker does not exceed six months, and from recent experiments, I believe does not exceed in the summer season three months.

By the aid of the Italian or Ligurian bee, this may be easily and satisfactorily tested. On the 2d of July last, I gave to a very powerful stock of native bees a pure Italian queen. To-day, Sept. 15, this stock was examined, to ascertain what proportion of the bees were of the Italian race. The stock is in a Langstroth hive. Taking out the frames one by one, both sides of each comb were carefully inspected, and so far as I could ascertain, at least nine-tenths of the bees were purely Italian.

Also on the 17th of July I gave an Italian queen to another stock of native bees. This stock was also examined to-day in the presence of a friend, who assisted me in the examination. Examining the combs as before, we did not find in this stock a single native bee!

This change has taken place, as will be observed, in less than two months. Since the 17th of July, I have taken out of this colony combs of maturing Italian brood—giving them to other stocks—more than enough to make a good colony of bees. Thus it will be seen that the natural life of the honey-bee in either of these instances would scarcely exceed three months; also, that it requires only a few months to change an apiary of native bees to those of the Italian race.—M. M. BALDRIDGE, in *Country Gentleman*.

**BOOK PREMIUMS.**—We see it stated that the California State Agricultural Society ordered of a single publishing firm in New York, agricultural books for premiums to the amount of full two thousand dollars.

#### EXTRACTS AND REPLIES.

##### GAS LIME.

Will you, through your columns, inform your readers of the value as a fertilizer of lime obtained from a gas manufactory; and in what manner it should be used. Is it good for trees? G. T. HAWES.

Beverly, Oct. 17, 1860.

**REMARKS.**—We find the following in relation to gas lime in the "American Muck Book:"—

Gas lime, however, in no case, if possible, should be wasted, as it would appear that it may always be safely employed with good effects under the following circumstances:—

1. It may be used directly upon mossy land, upon naked fallows, and in spring when preparing for turnips.

2. In composts, in which the whole of the soluble salts of lime will have a tendency to be converted into gypsum by the action of the air; and consequently the benefits, which result from a large application of gypsum, will be obtained by laying such composts upon the land.

3. As it appears usually to contain only a small proportion of caustic lime, it may with safety be mixed at once with barnyard or other animal manures, though not in too large quantity. It may also prove a valuable admixture with guano, on which its action would ultimately be to fix rather than expel the ammonia.

4. Strewn sparingly over the young turnip plants, it is stated that it prevents the attack of the turnip fly; and harrowed in, when the ground is naked, if the quantity be considerable, slugs and wire worms disappear from its effects.

5. If applied in too large quantity, it is liable to be injurious to crops of young grain. But grass lands, though at first browned by its application, soon recover and repay the cost by yielding a greener and an earlier bite in spring.

Gas lime, fresh from the works, it is also stated, is one of the best materials to lay under the floors of farm buildings; for it not only serves to absorb and fix the fertilizing gases in such situations, and afterwards will form a good manure, but being excluded from the air, it retains its disagreeable smell for a long time, and is much disliked by vermin and rats.

##### KEEPING CABBAGES THROUGH THE WINTER

Can you tell me through your paper the best way to keep cabbages sound and good until spring? I have now a good deal of trouble to keep them in a cellar, and thought you might know some better way.

North Hanson, Oct., 1860.

A. E. LUTHER.

**REMARKS.**—They are kept well in a cool cellar, set in sand just as they stood when growing. *Miner's Rural American* says cabbages may be kept in good condition through the winter, by laying down rails or poles, or strips of boards, just far enough apart so that when the heads of cabbages are set upon them, with the roots up, they will not touch the ground. Leave the cabbages where they grew as late as possible and not freeze, and then place them upon the rails or poles as above, with roots upward, and then bank up the earth on each side about a foot deep, covering the roots about six inches deep, and in the spring the cabbages will be found as fresh and green as they were in the fall, with the exception of a few of the outside leaves being decayed.

Another plan is to dig shallow trenches in a dry place, about two feet apart, and plant the cabbages in them as close as possible. Then drive stakes or small

posts along the rows, ten or twelve feet apart, and about two feet high, upon which nail anything that will support a covering of straw or cornstalks, placed with their butts down, in the form of a roof, and thick enough to keep out the frost. Cabbages kept in this manner are said to come out in the spring in excellent condition. The first plan we have tried, and found it a good one; the other we have not tried.

#### EGYPTIAN CORN.

I saw in last week's *Farmer* that Abraham B. Davis, of Palmer, had shared his profits in the culture of the Egyptian corn. When I saw Mr. Crandall's advertisement of the above mentioned corn in the *Farmer*, last spring, I enclosed one dollar to him; in return I received one hundred and forty kernels, and planted it the last of the fifth month; about one-third of it came up and shot out in tree form. It averaged about ten or twelve ears to a stalk, upon which only about three ears had corn on them, and were three to five inches long, and not filled out at the top. I had to cut up even this, to save it from the frost. I think that Mr. Crandall made a mistake in stating that there might be two crops raised in one year. Mine would have grown another year, if it had not been for a frosty winter, before the ears would have filled out.

A. S. PAYSON.

Foxborough, 10th Month 15th, 1860.

#### EGYPTIAN CORN.

Noticing the advertisement of Mr. Crandall in the *Farmer*, I was induced to send for the seed, which I received. I supposed it must be something better than our common corn. I thought no man would have the audacity to recommend to the farmers of New England anything opposed to their interest through the columns of the *Farmer*. I accordingly planted my corn with much care in good soil, well manured, and took good care of it, and gathered it after the frost in October. The husk was very green when the frost came, though I think that some of the ears may be ripe enough for seed, if any one should wish to try it. I planted it about the last of May. The best of the ears are not more than five or six inches long, and very small, the larger number being entirely without corn. Now it seems to me that Mr. Crandall meant to impose upon the public by his great statements that this corn was better in quality than any other corn, and that it would produce two hundred bushels to the acre, when, according to my success, it would not yield more than twenty.

PETER WAIT.

Danvers, Oct. 16, 1860.

#### FENCE POSTS AND FROST.

Will you inform me through the columns of your paper, the best method for setting fence posts on frosty land, where every spring the fences are tumbling over, being hove up by the frost.

R. H. DAVIS.

Essex, Sept. 20, 1860.

REMARKS.—We know of no way to prevent posts being thrown out by frost but to set them so deep that the bottom of the post shall stand on firm ground below where the frost reaches. This would require a pretty long post, but that would be cheaper than to be at the cost of building up the fence annually, and repairing the parts broken by the tumbling over of the posts.

#### DRAIN TILE.

Having been engaged more or less during the last six years in draining my land with tile, instead of the stone drain that I formerly had been very conversant with, and finding by my own experience in tile draining a great advantage and satisfaction, I have several times procured tile for my own purposes, and at the same time accommodated such of my neighbors as are draining their lands.

I have found that in draining land naturally too wet for cultivation with profit, that the increased crop of

two seasons, with early potatoes and cabbage, will fully repay all the cost of draining.

F. E. HALL.

Medford, Sept., 1860.

#### A GOOD YIELD OF BARLEY.

On the 5th day of May last my father sowed one and a half bushels of barley, on one and one-eighth acres of land, and threshed and winnowed upon the 6th of October, sixty-five bushels of good barley.

STEPHEN E. GALE.

Canterbury, N. H., Oct. 9, 1860.

#### FRITTERS.

Have you ever eaten fritters made as follows? If not, try them.

One cup of squash, boiled and strained, one cup of milk, one egg, seasoned with salt and enough flour to make a batter.

METHUEN.

#### THE LESSON OF THE LEAF.

We men, sometimes, in what we presume to be humility, compare ourselves with leaves; but we have as yet no right to do so. The leaves may well scorn the comparison. We who live for ourselves, and neither know how to use nor keep the work of past time, may humbly learn—as from the ant, foresight—from the leaf, reverence. The power of every great people, as of every living tree, depends on its not effacing, but conforming and concluding, the labors of its ancestors. Looking back to the history of nations, we may date the beginning of their decline from the moment when they ceased to be reverent in heart and accumulative in hand and brain; from the moment when the redundant fruit of age hid in them the hollowness of heart, whence the simplicities of custom and sinews of tradition had withered away.

Had men but guarded the righteous laws and protected the precious works of their fathers with half the industry they have given to change and to ravage, they would not now have been seeking vainly, in millennial visions and mechanic servitudes, the accomplishment of the promise made to them so long ago: "As the days of a tree are the days of my people, and mine elect shall long enjoy the work of their hands; they shall not labor in vain, nor bring forth for trouble; for they are the seed of the blessed of the Lord, and their offspring with them."

This lesson we have to take from the leaf's life. One more we may receive from its death. If ever, in autumn, a pensiveness falls upon us as the leaves drift by in their fading, may we not wisely look up in hope to their mighty monuments? Behold how fair, how far prolonged, in arch and aisle, the avenues of the valleys—the fringes of the hills! So stately—so eternal; the joy of man, the comfort of all living creatures, the glory of the earth—they are but the monuments of those poor leaves that flit faintly past us to die. Let them not pass without our understanding their last counsel and example: that we also, careless of monument by the grave, may build it in the world—monument by which men may be taught to remember, not where we died, but where we lived.—*Ruskin's Modern Painters*.

TOP-DRESSING.—A correspondent of the *Farmer and Gardener* contends that the beneficial effects of top-dressing applied in the fall are owing to its action as a mulch, rather than as a manure—that it *protects* rather than *enriches*.

*For the New England Farmer.*

# POTATO BLIGHT AND ROT IS CAUSED BY INSECTS.

MR. EDITOR:—In your papers of July 14th and September 29th, I find, in each, a communication from Mr. John Goldsbury, of Warwick, answering mine published in June, (dated the 5th,) on this subject. I read the one of July 14 the 13th inst., being the day which that paper reached me. I now answer both of his communications, and would have done so separately, but from the fact of not duly receiving the first paper. Mr. Goldsbury expresses "profound surprise," because I have "not given a logical answer to his seven reasons," against the depredation of insects, as the cause of potato blight and rot. He thinks his "reasons are impregnable and unanswerable,"—that my reply, supported by certificates from seventeen members of Congress, the Smithsonian Institute and Secretary Flint, is "no attempt, as yet," at an answer or refutation of his logical assertions. He says I "deceived" those "gifted minds"—made them "jump at the conclusion" that insects cause the blight and rot. He does not deny that "they actually saw the insects," but declares that "such assertions prove nothing." He assumes a hypothesis which is *positively untrue*. It is this: that the "insects were on rotten potatoes." This statement by him I *positively deny*. What are the facts? Two hills of potato vines, old tubers and earth connected, and in a growing state, were taken from the field directly to the committee room in the Capitol. The earth was removed from the vines and tubers, by the committee. The old tubers were hard and *undecayed*, sending forth strong, vigorous vines. These are what Mr. Goldsbury calls "dead or decayed vegetables." Upon the lower *under-ground joints and roots* myriads of living *larva insects* were seen, sucking the sap, leaving, wherever congregated, a brown rusty diseased appearance. The committee also examined the same kind of potatoes, *undecayed in glass jars*, showing vigorous growing sprouts. These specimens were firm, still the committee, and others, saw innumerable microscopic insects crowded together subsisting on the sap, and leaving the same brown poison appearance on the surface, which connects with the sap or vital element; thus the disease is infused into the growing tubers. These seventeen members witnessed these ocular facts, and from them made up their minds deliberately. The conclusion "jumped at" by them, was not from any "fore-stalled assertion" made by me. The committee voluntarily invited such of their colleagues as they thought possessed scientific attainments and agricultural knowledge, to aid them in their investigation and decision, and they have unitedly given their judgment to the world. More than *five hundred* other persons, including those of scientific skill and agricultural experience, have also, as secondary witnesses, *examined these facts*, and not one has questioned the decision of the committee, but the correctness of their judgment is frankly admitted by all. Mr. Goldsbury alone questions their decision. He declares these developments of *facts*, and certificates of their reality, "no attempt as yet" to refute his "seven reasons." I ask your readers to form a judgement for themselves, candidly, whether *my facts*, thus revealed,

and attested to by high authority, are not a perfect and unanswerable refutation of his "seven reasons." He wants what he calls "logical answers." His "reasons" are nothing but theories logically supported. I produce *facts*, the *living enemy* at their work of *destruction*, as a reply to his reasons, and ask him to refute these *facts*. They over-balance and set aside all *theory*, and all "logic." A few days since cattle were in my corn-field. I saw them. There is no "logic" in the power of man that could then have convinced me that cattle were not there. Their presence was an unanswerable demonstration that my crop would be destroyed, if they remained.

These visible enemies were cleared from the field, and my crop was saved from destruction. This statement is only such a fact as Mr. Goldsbury or others often experience. I have found also by microscopic research, microscopic insects under ground on my potato vines and their roots. They are very small but very numerous, and by repeated experiments and agricultural tests, year after year, I have proved the fact, that they actually poison and destroy, prematurely, my potato vines and their tubers. In the prosecution of these experiments, I have discovered how to annihilate these little enemies, and when cleared from the seed in which their embryo is hibernated, the vines continue to grow vigorously and very healthy, yielding abundantly, while others under ordinary culture *prematurely* decay and rot. Mr. Goldsbury has in his possession certificates of these facts, and he cannot refute them. Facts based upon agricultural tests showing demonstrations that no "logic" can set aside.

The Smithsonian Institute, and C. L. Flint, Esq., Secretary of Mass. Board of Agriculture, have also given certificates. I will briefly state the facts relative to these examinations. The Smithsonian Institute examined the same undecayed potatoes examined by the seventeen members of Congress, and they not only found insects, but the eggs of these microscopic insects imbedded in the perforations and cavities of the epidermis of these undecayed tubers. Mr. Flint, of Boston, states particularly what he examined, and what he saw. He had charge of the potato, and kept it as described. The microscopic examination was in June, then the potato had vigorous sprouts.—Among those present was the late Hon. B. V. French. He declared the "potato sound, suitable to plant, or cook." There were four persons present, to hear this assertion: Mr. Brooks, Mr. Sweeney, Mr. Flint, and my son. Mr. Goldsbury can consult them, if he doubts the assertion of Mr. French. Furthermore, the Patent Office have made a most rigid examination, not only as to the cause of this disease, but relative to the specifications for a remedy. In the first reply the Office made, answering my petition, it was intended to place before me unanswerable objections to granting the patent. The Hon. J. Holt, then Commissioner of Patents, made six objections, declared in the following words, viz:

1st. "Your specifications contain much irrelevant matter."

2d. "The perfect insects, sent by you, are not Aphides."

3d. "It is proved, beyond all doubt, that neither the Aphis, nor any other insect, is the cause of the potato disease."



4th. "The dots pointed out by you, on the specimen potato sent, are not perforations caused by the puncture of insects, but belong to the structure of the tuber."

5th. "That eggs do not exist where you assert them to be."

6th. "That a method of cure operating upon a non-existing disease must be a fallacy."

It is unnecessary to give here particulars of this long examination at the Patent Office. It must be, however, understood by the reader, that, according to the rules of the Office, no patent can be granted unless *all* the various objections cited by the Commissioner are refuted, either by established authority, or ocular demonstrations convincing to the Commissioner of Patents. It is sufficient in this case for Mr. Goldsbury to know, that, a careful and rigid investigation was made by Commissioner Holt, aided by the ablest scientific examiners in Washington; by the Judges of Appeals and their own selected witnesses, all with a view to refute authorities and facts, which I placed before them at the several examinations. Their attempt failed. They could not sustain even a single one of their own objections. All were refuted; and the Commissioner acknowledged to me personally, at the last examination, that "the proof was clear in my favor, that the Judges of Appeals did not sustain the objections of the Office, therefore, my patent was granted." Can Mr. Goldsbury, by "logic," annul this high official decision? Can he make you and your readers believe that seventeen members of Congress, the Smithsonian Institute, the Commissioner of Patents and his scientific examiners, the Judges of Appeals, with their witnesses, and Secretary Flint, have *all* been "deceived" by me, and by "fore-stalled assertion" all "jumped at a conclusion?" Does he really believe in such a wholesale "deception," and that I have not refuted the arguments of these high functionaries selected to examine all *new discoveries*? I ask him to furnish his proof about "deception?" There is abundant authority and facts to settle conclusively that some insects leave a poison at the fountain of their nourishment. This particular subject it is unnecessary here to discuss. The discovery which I have made is *new* to Mr. Goldsbury, as also to others. It is truly as he says, a "new and strange economy of vegetable and insect life" which I have microscopically discovered. These new and strange facts are the "ocular demonstrations," which Mr. Goldsbury will not believe. He is skeptical, and denies the attestations of the committee of the U. S. House of Representatives, "that new and important discoveries have been made by me." He says if I would not talk so much about "ocular demonstrations, and direct my attention to the cause of the rot," I should be "sure of his respect and make some converts."

I can assure Mr. Goldsbury that I have been "directing my attention" each summer for nine years to the investigation of the cause of the potato blight and rot. By microscopic research I have revealed, from spots, all opaque to him, "ocular demonstrations" which his "logic" cannot refute. It is the "ocular" facts, I presume, which annoy him so much. They are more reliable than any man's "logic." And what the public want is facts. They have had enough of theories and "logic" on this subject. Mr. Goldsbury has

declared that there are "seventeen Yankee farmers" whose judgment is more reliable than the "seventeen members of Congress."

I have heretofore asked him to furnish the names and publish their investigations of this subject? This he fails to do. I have also asked him to give the authority and evidence, "that insects are the consequence of disease?" This he also fails to do. The insects in Mr. Flint's bottle and on other specimens, were not the "consequence" of disease, of "decay," or of "rot!" Now, I ask Mr. Goldsbury where the insects came from, which Secretary Flint saw on that *undecayed* potato taken from the corked bottle in his possession?

LYMAN REED.

Baltimore, Oct. 15, 1860.

#### PROFESSOR HORSFORD'S MODE OF PRESERVING CIDER.

At this season of the year, when so many people are making or laying away cider for future use, they will be looking for some mode of preserving it in a sweet or mild form. So here is Prof. Horsford's, which has been tried and found effective:

When the cider in the barrel is undergoing a lively fermentation, add as much white sugar as will be equal to half or three-quarters of a pound to each gallon of cider, and let the fermentation proceed until the liquid attains the right taste to suit; then add an eighth to a quarter of an ounce of sulphite (*not* sulphate) of lime to each gallon of cider in the cask; first mixing the powder in about a quart of the cider, and then pouring it back into the cask, and giving it a thorough shaking or rolling. After standing bunged up a few days, for the matter added to become incorporated with the cider, it may be bottled or used from the cask.

Don't mistake sulphate of lime, which is a natural production, and known as plaster of Paris, for sulphite of lime, which is a manufactured article, and is worth by the barrel about 33 cents a pound and by the cwt. 37½ cents, and by the single pound, 50 cents. It has been of late years much used by sugar-makers to prevent fermentation of cane juice; and in our opinion it will be found more effective as a preventive of fermentation in cider than an arrester of it after it has proceeded nearly to completion.

FENCES IN OHIO.—Acres of enclosed land in Ohio, 18,000,000; one mile of fence to each 40 acres, 450,000 miles; cost 80 cents per rod, or \$256 per mile, is \$115,200,000; yearly expenses equal to renewal every fifteen years, \$7,680,000.

Suppose our farmers should adopt the soiling system more generally, the saving in expense of fences would enable them to perform the good-natured act of paying the interest on the national debt of Great Britain, by merely leaving out their division fences. Ohio is not alone in this matter; it is one of the silly heirlooms entailed upon us by our forefathers, who required some easy mode of getting rid of excess wood; we keep up the fashion without the slightest excuse for so doing.

—Working Farmer.



*For the New England Farmer.*

### APPLES, PEARS AND GRAPES.

MR. EDITOR:—I have forwarded to you nine specimens of apples, seven of which were originated here on the Shaker premises in Canterbury. The most of them we have been growing for several years, and think them worthy of more public notice. They are packed in the box, each variety by itself, with a card and number to correspond with the following:

- No. 1. *President*. Late Fall.
- No. 2. *Banian*. Very handsome. Will keep till March.
- No. 3. *Autumn Beauty*. Till December.
- No. 4. *Manzana*.
- No. 5. *September Sweeting*. Very fine.
- No. 6. *Fall Sweet*.
- No. 7. *Winter*. No name.
- No. 8. *Winter*. No name.
- No. 9. *Redcheek*. Midwinter.
- No. 10. *Pear*. Wish to know its name.
- No. 11. *Northern Muscadine Grape*.

The scions of the President apple I received from John P. White, of Pelham, Mass. The original tree grew in his pasture. We have grown the apple here some ten years, and find it a very desirable fruit in its season, which is about December.

The Manzane we received from New York State with that name attached to the scions. If you are acquainted with the apple, please inform me whether or not that is the name it bears, as I cannot find it in any of the fruit books.

I also wish to know the name of the two pears.

The grape is the Northern Muscadine, a perfectly hardy grape for our northern climate, needing no protection during our severe winters. Ripens about the middle of September. The only objection which I have to it, is its property of falling off from the cluster after having been kept a few days, as you will see by the specimens sent you. They have been kept about two weeks.

The Redcheek, No. 9, is an admirable winter fruit, possessing a flavor equalled by few apples. It is matured at about midwinter. For dessert and pies, it is particularly esteemed. The other winter varieties will show for themselves, if kept till matured. I have kept the Banian, No. 2, till March.

I should like to see an engraving of the President, with its description, in your valuable *Farmer*.

The specimens of the Autumn Beauty and Fall Sweet are not so nice as I should have been glad to send you. In consequence of a powerful wind they all dropped from the trees, and were more or less injured. If you consider any of them worth circulating, please inform me.

Can you, or any of the readers of the *Farmer*, inform me where I can obtain a correct process of making good grape wine.

I should like to know how the "Shaker grafting cement," which I sent on trial last year, proved among the grafters.

PETER A. FOSTER.

*Shaker Village, Mer. Co., N. H., Oct., 1860.*

REMARKS.—The "box and its contents" were duly received, and contents tested. Some of the apples were very handsome, such as the President and Banian. The September Sweeting was

very fine, juicy, fine fleshed, and good flavored. The Redcheeks were also fine looking. We cannot decide upon the name of the pears—one of them strongly resembles the Flemish Beauty, and may be that variety somewhat affected by soil and climate. The grafting wax worked admirably.

### REMEDY FOR CHOKED CATTLE.

We have been requested to republish the following remedy for choked cattle. It appeared in the *Farmer*, for March, 1853.

We were not aware, until quite recently, that there is an annual loss by the choking of cattle which amounts to a very serious item in the commonwealth. On mentioning the subject lately, a gentleman informed us of several instances of quite recent occurrence, some of which proved fatal.

Having a cow in the habit of getting choked, we found it necessary to find some ready way of relieving her, or else to see her die. The plan described below is easy and sure. At any rate, we have known a woman "unchoke a cow," repeatedly, alone, with these implements.

Take a round stick, fifteen inches long, and two or two and a half inches in diameter, and bore an inch hole through the centre, as shown in Fig. 2 at *b*; take a common broom handle and pass its upper end through the hole at *b*, in the stick,

Fig. 1.  
Cattle Probang.

Fig. 2, and draw it along to the lower end, at letter *a*. The end of the stick at *a*, must be wound with cotton cloth to make a bunch about two and a half inches through, and the cloth nailed on so as to prevent all possibility of its slipping off,—then cover the cloth with lard, so as to make it slip easy. Now place the stick, Fig. 2, across the cow's mouth, and fasten it with strings or straps about the roots of the horns, then gently press the stick, or probang, down the throat, and the work is done!



Fig. 2.

These articles may be fitted ready for use in half an hour, and should always be in readiness. After having them by us for several years, we find that the practice is an old English one, and the same operation is described in some of the English books.

## BAKED APPLES.

A homely subject enough, many will say; but an important one, nevertheless, in the edible world, and its virtuous tendencies will be evident enough before we get through with it. We are disposed to no glowing eulogy on apples, either raw, roast, baked, stewed, fried, puddinged, or preserved. We propose to speak simply what we know, what we have already lived on for weeks past, and what we in all honesty recommend to every good house-keeper—most emphatically to those having families of children.

A sweet apple, sound and fair, has a deal of sugar or saccharine in its composition. It is, therefore, nutritious; for sweet apples, *raw*, will fat cattle, horses, pigs, sheep, and poultry. *Cooked* sweet apples will "fat" children, and make grown people *fleshy*—"fat" not being a polite word, as applied to grown persons. Children being more of the animal than "grown folks," we are not so fastidious in their classification. But to the matter in question. In every good farmer's house who has an orchard, baked sweet apples are an "institution," in their season. Everybody, from the toddling baby holding up by his father's knee—children are decidedly a household commodity—away back to "our reverend grandmother" in her rocking-chair, loves them. No sweet-meat smothered in sugar is half so good; no aroma of dissolved confectionery is half so simple as the soft, pulpy flesh of a well-baked apple, of the right kind. It is good in milk, with bread. It is good on your plate, with breakfast, dinner, or supper—we don't "take tea" at our house. It is good every way—"vehemently good"—as an enthusiastic friend of ours once said of tomatoes.

Now, for the kind of apple to bake, and the choice of them in this, in the midst of the apple season. Apples have two qualities, one for eating raw, out of the hand; another for cooking, or cider purposes. We cannot go into the explanation of all these things at this time, but will recur to it hereafter. Some varieties combine the perfection of the two qualities—those of eating raw and cooking. Others are good for nothing until cooked, or their juice expressed into cider. The latter we let alone, for the present. We do not even propose to describe the qualities of the best apple to bake, only that they be sweet and rich. We will name a few kinds, and the seasons in which they are in perfection. They are all to be found in market in their various times of eating or cooking. Some are already past the season; but more and better ones are coming in for this and the two coming months. We will, however, mention all that occur to us, past, present, and to come, that those of our readers who intend planting may profit, if possible, by our suggestions. First, in season, we name the Bough—early Sweet Bough some call it. It is among the earliest—being ripe in August—as it surely is the best of its season, large, fair, and yellow, with a slight blush on the side. We cannot describe it at length, now. It grows freely throughout most of the northern and middle States. Next in season is the Golden Sweeting—a good sized, yellow, fair fruit, with a long stem and slightly oval shape. It is equal in flavor to the Bough, and slightly richer. It ripens early in September, when the Bough is done, and remains

near, or quite, a month in season. It is a thrifty, harder grower, and holds a wide range of climate and soil as its *habitat*. Soon after this comes the Jersey Sweeting—a large, red, fair apple, with drier flesh than the last, but a good baking fruit. Succeeding this comes the Lyman's Pumpkin Sweet, or Pound Sweet—very large, whitish-green in color, and plashed with still lighter stripes from the stem downward. Not so delicate in flavor as the first named, but excellent when ripe. Still better than either of those we have named is the English Belle-bonne—large, yellowish green, and intensely sweet. It is the best baking apple we know; ripens in October, and will keep well cared for, until January. No sweetmeat is richer than this. We have known good molasses made from it, and it is good eaten from the hand, or made into apple-sauce, for which purpose no apple is scarcely so good. It is not a common fruit. We first saw it in New England. We have it in an orchard, and would rather spare any variety we have than this. Next to this is the Talman Sweeting—a medium sized, whitish, round, winter apple. Its best qualities are not developed until cooked, when it becomes a perfect sweetmeat. It will keep into May, properly put up.

These six are the best varieties of several baking apples, which now occur to us. There are, however, various local varieties of good sweet apples, which are grown in different parts of the country, perhaps equally or nearly as good as those—indeed, we know some such. But as we did not intend writing up any particular variety of apple for baking or cooking, when we commenced, we are content with recommending the use of the sweet apple in general, as a decidedly valuable article of household economy, and leave it at that.

Tart or sub-acid apples are preferred by some for baking, but they are not so generally liked as the sweet, nor are they so nutritious. But we must stop, or we shall wander far into the details of pomology.—*N. Y. World*.

**RATS.**—A correspondent of the *Gardener's Monthly* says: "I tried the effect of introducing into the entrance of their numerous holes, runs, or hiding-places, small portions of chloride of lime, or bleaching powder, wrapped in calico and stuffed into the entrance holes, and thrown loose by spoonfuls into the drain from the house. This drove the rats away for a twelvemonth, when they returned to it. They were treated in the same manner, with like effect. The cure was most complete. I presume it was the chlorine gas, which did not agree with their olfactories."

**A SURE REMEDY FOR A FELON.**—It is said by somebody, who pretends to know all about it, that the following is a sure remedy for a felon:

"Take a pint of common soft soap and stir in air slacked lime till it is of the consistency of glazier's putty. Make a leather thimble, fill it with this composition, and insert the finger therein, and a cure is certain."

We happen to know that the above is a certain remedy and recommend it to any one who may be troubled with that disagreeable ailment.—*Buffalo Advocate*.

*For the New England Farmer.*

### IMPORTANCE OF THE WHEAT CROP.

MR. EDITOR:—It has been my pleasure, the past week, to receive a superior specimen of White Flint Winter Wheat from my esteemed friend, James F. B. Marshall, Esq., from his farm in Westboro', Mass. At my suggestion, he says, he was induced to try the experiment which has resulted in giving him thirty bushels per acre. The size and plumpness of the berry indicate a weight of 63 to 65 lbs. to the bushel. Here is the value of seven barrels of flour to the acre, while the straw for the farm or the markets in that locality, will nearly pay for the labor. Such an example should be followed by every farmer in this neighborhood and surrounding towns.

I am more than hopeful of every farmer of New England in relation to this matter of raising his bread. He neglects no other crop, and surely no crop is so indispensable to his household comforts as this.

I notice in your issue of Saturday last, "A sensible movement of the Worcester South Society,"—the first question being, "Can the raising of wheat be made the most profitable crop of the small grains?" This question would seem to be affirmatively answered by the foregoing statement of my worthy friend from Westboro'. His statement falls somewhat below some others that you have published the past season, but it is fair to estimate it at two dollars a bushel when the price of the best flour is eight to nine dollars per barrel, and seldom below this figure. While this would seem to answer the question, as being *far the most* "profitable crop of the small grains," (probably nearly double of any other,) yet it is the imperative duty of the farmer to raise his rye, barley and oats for the general wants of his farm. Let us suppose the product and value of an acre—

30 bushels wheat, at \$2.....	\$60.00
30 " rye, at \$1.25.....	37.50
60 " oats, at 50c.....	25.00
40 " barley, at 80c.....	32.00

Now, this tabular statement is much in favor of wheat. The rye and oat crop is pretty largely represented, but it may be a fair showing, relatively—cost of producing, the same.

Mr. Editor, you may recollect ten years ago, and since, I was urgent in advocating and recommending that Massachusetts and the other New England States should offer a special bounty on wheat-growing, showing by statistics at that time that your State alone imported about twelve millions of dollars of bread-stuffs. These figures look immense, but they are, nevertheless, true! With the few past years of development and encouragement to the farmer, if aided by a State bounty of a few cents on a bushel, for a term of three to five years, would it not be an additional stimulus? It would add millions of revenue to your State. It would add value to your now worthless, unproductive acres. It would keep your valuable, solid young men with their families, at home, who seek (to be disappointed,) a more prolific soil in the West. There the church, the school-house, the farmer's club, the social gatherings, the rollicking sports of the young—all disappear by reason of loneliness, far-off neighbors, compelling every sacrifice, better known to those who have exchanged them, for a happy New England home!

Wheat and corn are nearly all the marketable products of the West, if, perchance, the season is favorable to make them. At your own New England home you can raise your wheat and corn, and every pound of hay, every pint of milk, every chestnut, apple, pear, onion, cucumber, cabbage-head—nay, all of mother earth's productions, have value and a ready home market. Then encourage the avenues to agriculture. If it is *bread*, and a small State bounty required to make it, then by all means propose it—for all the *outs*, the *ins* will be returned a thousand fold to your State.

Brooklyn, L. I., Oct. 22, 1860. H. POOR.

### TEXAS.

A correspondent of the *New York Evening Post* declares that Texas is not an agricultural State. He says:

"Ten years' wandering through almost every part of Texas, with some little experience in stock raising, gives me reasonable grounds for venturing an opinion on her capacities and resources. Along the Gulf coast, and in the bottoms of the lower Brazos, Red and such large streams, crops are generally sure; elsewhere, Texas has not one single element of an agricultural country. Farmers, with all their labor, are never sure of raising corn and breadstuffs for the support of their families; and in my short experience I have known several seasons when the people through the greater portion of the country have subsisted almost entirely upon meat.

Texas is, however, a stock country, and in the western part of the State, pre-eminently so. There the Mozquit grass, which stands the frosts of winter and long resists the droughts of summer, covers immense tracts of country, and cattle range, multiply and keep fat through all the vicissitudes of climate.

Sheep-raising is yet in its infancy; it is an experiment in which more persons have failed than succeeded. But a very small portion of the country is suitable for sheep, and some species of the Mozquit grass have their seed armed with needle-like and barbed spires, which torment and even kill the sheep, and render their wool unprofitable."

To succeed as a cattle raiser, the emigrant needs from six to ten thousand dollars, otherwise he must go to the extreme frontier, and shift his stock from place to place, as settlements crowd upon him. He has to depend for protection against the Indians upon his rifle and revolver, and leads a life of constant danger and hardship, without neighbors, and debarred the necessaries and comforts enjoyed by the negro on one of our poorest Southern plantations.

ENGLISH HORSES.—A writer in the *London Review* complains that the noble breed of useful English horses is becoming ruined. He says:

Our country, once famed for the best breed of saddle-horses in the world, is becoming overrun with a lot of worthless, weedy, refuse racing stock, which by many inexperienced farmers and breeders, are gradually being crossed with, and thus deteriorating the breed of our short-legged, deep-

bodied, wide-hipped, strong loined saddle-horses, the lineage of which, in a few instances, we can still trace, by their compact forms, to the breed of race horses encouraged by our forefathers, who bred horses for *useful* purposes, to carry *men* long distances, and not the spindle-shanked velocipedes bred by our turfmen of the present day, that break down after running a few furlongs with a baby on their backs.

#### ECONOMY IN FEEDING STOCK.

In some parts of New England, the hay crop, this year, is very light, and in many sections it falls considerably short of an average yield. In portions of Western Vermont it is almost a failure. A gentleman whose farm lies on the shore of Lake Champlain informed us recently, that on the same land which last year produced one hundred and twenty tons, he cuts this year only twenty tons; and that in his immediate neighborhood, many fields were not mowed at all, as it would not pay to swing a scythe over them.

These facts naturally suggest to every farmer, the importance of economy in spending his hay. But even where there is a full crop, our long winters and the severe cold of our climate make the question of economy in feeding stock one of great interest to the farmers of New England. Even in old England, where the winters are far more mild, this subject is much discussed and much experimented upon. Scientific men, like Mr. Horsfall, Dr. Anderson, and others, have instituted the most thorough experiments in compounding the various materials of food, while practical feeders are fully alive to the necessity of using every means to economize that part of their crops which is consumed on their farms.

We believe that American farmers have rather neglected this branch of farm economy. They have in many ways endeavored to increase the production of their fields; have taken advantage of various appliances to diminish the cost of production, by the use of machinery and better constructed implements; have made trial of artificial manures, new crops, and new processes of cultivation; have been careful in harvesting their crops—scolding Billy or Georgy roundly if a few thin scatterings from a huge load of hay have been left upon the ground. But after the barns are filled, and the inclemency of the weather has driven the cattle to the shelter of the stables, with a sharp appetite for the winter's store, it would seem that the great majority of our farmers are too indifferent to the importance of economy in feeding out so large a portion of the whole production of their farms as is required to sustain their animals during the long period of frost and snow, which makes up our New England winters.

In our monthly for January, we published some suggestions by Mr. H. Lincoln, of Lancaster, for

a plan of warming stables, and of steaming or cooking in some way the food for the cattle, based on the success which some English feeders claim for their experiments in those particulars, by which stables are kept at a temperature of 60°, and the cattle are fed with warm and palatable messes.

But remembering the adage, that "we must creep before we go," we think it will be well for most of us, in this country, to begin by battening our stables, and perhaps where the soil is sufficiently dry and warm, by lowering the lodging-rooms of our cattle a little below the surface of the ground, so that when we do conclude to erect furnaces and cooking apparatuses in the basement of our barns, the change to which our stock will be subjected may be less than it must be now, when a loosely boarded stable admits, by broad cracks from beneath, as well as from the sides and ends, the "bracing" cold of our frequent zero-mornings, and the chilling dampness of our protracted north-east storms.

A constant improvement is going on in New England in respect to the shelter of stock. A New Hampshire farmer recently stated that he could remember when there were but two or three barns in his town, which had "great doors." The drive-way to the floor was guarded by poles or boards a few feet high, allowing the snow to drift in, by cart-loads, and making the temperature the same in the barn as out of doors; hence the saying, "as cold as a barn." Now, he continues, "our farmers use only well seasoned and matched boards, or they double board or batten; and they would almost as soon erect a new house without a cellar, as to build a new barn without one."

Some experiments in feeding hogs, reported by a correspondent of the *Ohio Farmer*, show a surprising difference in their gain in warm and cold weather. In the latter part of October, 100 hogs averaging 200 pounds each, were fed in covered pens all they could eat of corn and cobs ground together, steamed, and given in allowances five times a day. In a week they were weighed, when, reckoning 70 pounds of corn and cob as equal to a bushel of corn, and pork at four cents a pound, the hogs paid 80 cents a bushel for the corn. The same experiment was continued. The first week in November, the weather being colder, the hogs paid 62 cents a bushel. The third week the corn brought only 40 cents, and the fourth week it brought only 26 cents, the weather continuing to grow colder. Another lot was fed through December, which gave only 26 cents a bushel for the corn. A part of the time the temperature was at zero, and then the hogs only gained enough to pay *five* cents a bushel for the corn.

In respect to the economy of warmth in the

feeding of sheep, we find the following experiments reported by English farmers.

One hundred sheep were placed in a shed, and ate 20 pounds of Swedish turnips each, per day; while another hundred, in the open air, ate 25 pounds each, and at the end of a certain period, the former animals gained each 30 pounds more than the latter; plainly showing that to a certain extent, *warmth is a substitute for food.*

Five sheep were feed in the open air, between the 21st of November and the 1st day of December. They consumed 90 pounds of food per day; at the end of this time, they weighed two pounds less than when first exposed.

Five sheep were placed under shelter at a temperature of 49°; consumed at first 82 pounds, then 70 pounds per day, and increased in weight 23 pounds.

A similar experiment was made by another distinguished farmer in the same country. He placed 80 Leicester sheep in an open field; they consumed 50 baskets of cut turnips per day, besides oil cake. On putting them into a shed, they were immediately able to consume only 30 baskets, and soon after but 25, being only one-half the quantity required before; and yet they fattened as rapidly as when eating the largest quantity.

Every farmer expects that his cattle will have keen appetites in cold weather, but few probably know exactly how much more fodder they consume with the mercury at zero, than when it stands at some sixty degrees above that point. We therefore invite practical farmers to write out for our columns their opinions and experiments on the effect of temperature in feeding stock, and other topics relating to this important subject.

#### DRAIN TILE—NEW STYLE OF.

There is now on exhibition at our office a new kind of drain tile, made by mixing Rosendale cement with sand, in sufficient quantities to leave it porous for the admission of water; and we are surprised to find this tile so very strong, containing so large a proportion of sand. The discoverer of this process has patented it, and will be prepared at an early date to supply orders. Of course, tile made in this way requires no baking, and as Rosendale cement is now sold at \$1 10 per barrel, capable of tempering eleven barrels of material for tile making, the tile is very cheap. In a few days after being made, it becomes extremely hard, and the longer it remains in the soil, the stronger it will be. When both ends are stopped, and it has been immersed in a pail of water, it fills itself in a few seconds. This promises to be a great improvement in districts where a suitable kind of clay for tile making, or the necessary fuel, cannot readily be procured.—*Working Farmer.*

**SUBSOILING vs. DROUGHT.**—We have had an opportunity during the late season, of observing the benefits of subsoiling on corn crops. The

drought has been very severe, and subsoiled fields can be picked out as far as they can be seen, exhibiting corn in full vigor; while on shallow-plowed land the crops were scarcely worth the care necessary to maintain them. Where a lifting subsoil plow of the smaller size has been used in place of the hand hoe, and in place of the small mould-board plow, in the cultivation of corn, the crop has been saved, even where drought most prevailed. How long will it take our farmers to learn that subsoiled land never suffers from drought?—*Working Farmer.*

*For the New England Farmer.*

#### THE BIRDS OF NEW ENGLAND—No. 5.

##### BUZZARDS.

Red-tailed Buzzard—Common Buzzard—Rough-legged Buzzard—Black Buzzard—Red-shouldered Buzzard—Winter Buzzard—Marsh Hawk, or Harrier.

The fifth and last sub-family of the *Falconidae*, the BUZZARDS, (*Buteoninae*, or *Circinae* of some authors,) embraces those birds of the Falcon tribe characterized by their slothful and inactive habits, comparatively weak bills, feet and claws, a softer and more downy plumage, and a rather heavier form than most others of this extensive family. Their flight is graceful and protracted, generally performed in sweeping circles; and several of the species delight in soaring to immense heights, apparently enjoying the coolness of the upper atmosphere, yet will remain perched for hours, in idleness, until forced to exertion by the calls of hunger. They breed in trees, generally in the interior of forests, many of the species retiring to high northern latitudes during the period of incubation. Their chief subsistence consists of such humble prey as small or wounded birds, the smaller mammalia and reptiles, and when forced by hunger, sometimes prey upon the poultry in winter and early spring; but from the multitudes of *Arvicola*, or field-mice, they destroy, are rather beneficial to the farmer than otherwise. The Buzzards are allied in form to the Eagles on the one hand, and on the other approach the Owls in some of their characteristics. All undergo great changes of plumage, and one or two species are somewhat nocturnal. The New England genera that we shall recognize are *Buteo* and *Circus*.

The RED-TAILED BUZZARD, (*Buteo borealis*, Swain,) a species peculiar to America, inhabits the United States from Canada to Florida and Mexico, and far to the westward, and is even found as far north as the 58th degree of latitude. It frequently breeds in the forests of New England, but is said to be more abundant in the Southern States, great numbers retiring from the higher latitudes at the approach of winter to these milder regions. From its occasional depredations upon the poultry in winter and early spring, when its more common diet of birds, rabbits, squirrels, meadow mice and reptiles, is not easily obtained, it is generally well known as the *Hen Hawk*, *Red-tailed Hawk*, &c. It is one of the most active of the Buzzards, being somewhat allied to the true Hawks and Falcons, and seems to delight in soaring in the higher regions of the air in fine weather, rising until it is lost to view amid the fleecy clouds, or clear blue of the sky;

while from this altitude its clear, shrill, and well-known cry of *kae, kae*, prolonged, and but little varied, is distinctly heard. In Louisiana it is said to build its nest early in February, but in New England it is not commenced till near the first of May, at which time it retires to the dense forests, selecting one of the tallest trees for the receptacle of its nest, which is large, and placed as near the top as convenient, composed of coarse sticks and twigs, and lined with finer materials. The eggs, four in number, are dull white, thinly marked with brown.

Length of this species, twenty to twenty-two inches; breadth of wing, three feet, nine inches; above, dusky brown; beneath, brownish-white, streaked with dark brown; tail, ferruginous in the adult birds.

The COMMON BUZZARD, or SHORT-WINGED BUZZARD, (*Buteo vulgaris*, Bechst.) inhabiting the northern parts of the continent and the Rocky Mountains, is met with in New England, but more commonly at the approach of winter. In Europe it is described as a common and well-known bird. Its disposition is sluggish, contenting itself with the most ignoble game, and rarely exhibiting courage enough to attack the domestic fowls. At times it delights to soar at great altitudes, but generally remains perched near meadows and swamps, where it indolently watches for the appearance of frogs, mice, and other small animals. It is of about the size of the preceding species. It breeds in trees, commonly in the higher latitudes, laying five greenish-white eggs, blotched with brown.

The ROUGH-LEGGED BUZZARD (*Buteo lagopus*, Bechst.) is also a European species as well as American, but here appears to be more common in the northern parts of the continent than elsewhere. It visits the United States in winter, but at the approach of spring again returns to more boreal latitudes, where it has been found to breed. "This handsome species," observes Wilson, "notwithstanding its formidable size and appearance, spends the chief part of the winter among our low swamps and meadows watching for mice, frogs, lame ducks and other inglorious game. Twenty or thirty individuals of this family have regularly taken up their winter quarters for several years past—and probably long anterior to that date—in the meadows below this city, (Philadelphia,) between the rivers Delaware and Schuylkill, where they spend their time watching along the dry banks like cats; or sailing low and slowly over the surface of the ditches."

The rough-legged buzzard is twenty-two inches in length and fifty in alar expanse. Color above, chocolate brown edged with ferrugineous, beneath ochraceous, streaked with dusky; bill uncommonly small, suited to the humility of its prey."

The BLACK BUZZARD, (*Buteo Sancti Johannis*, Bonap.) is a rare species, said to be remarkably shy and wary, and described as partial to the vicinity of the larger rivers, swamps and marshes generally, where its favorite food of mice, frogs and moles is observed to abound. It spends the summer far to the North, breeding in Newfoundland, Labrador and around Hudson's Bay, visiting the United States in winter, but is rarely seen here in summer. Its flight is easy and sailing, occasionally swift, and apparently performed with but little exertion. The length of this species is

twenty-one inches, breadth of wing fifty; general color quite black, with slight touches of brownish. This species has been described by some writers as the young of the preceding (*Buteo lagopus*.) but is now generally considered as distinct.

The RED-SHOULDERED BUZZARD, (*Buteo lineatus*, Jardine,) is dispersed over the greater part of the United States, though according to Audubon, rarely observed in the middle districts, and is generally considered to be a quite rare species. In summer it is confined chiefly to the woods, breeding in the tallest trees, constructing a large nest, somewhat resembling that of the common Crow, near the extremity of a large branch, and laying four or five bluish white eggs, faintly marked at the smaller end with brownish red. It is said to prey much upon squirrels, silently watching for them in an erect posture, and killing them instantly as it pounces upon them; but larks and small water-birds constitute an important part of its food. It is described as one of the noisiest birds of its tribe, frequently uttering its shrill, discordant *ka-hee ka-hee*, especially in spring, and delighting to soar in swift gyrations at great elevations. This species, in connection with the following, has been a source of perplexity to naturalists, it being often described as the *Red-Shouldered* or *Winter Hawk*, and in the account is blended together the history of both, and it is now hardly decided whether one or two species really exist under this cognomen, though there seems to be sufficient reason for regarding the *Red-Shouldered Buzzard* and the *Winter Buzzard* as two distinct species. Indeed, they were so described by Wilson and Audubon, though Bonaparte and others have regarded them as the same bird in different states of plumage. The species described as

The WINTER HAWK, (*Astur? hyemalis* of Jardine, *Falco hyemalis* of Wilson and Audubon) seems to be a migratory species coming to us from the north at the approach of winter, being quite common in that season, even in those regions that the Red-shouldered Hawk is seldom observed to frequent. Wilson describes it as a dextrous frog-catcher, these reptiles constituting its chief food, and speaks of extracting from the craw of a single individual, "the broken fragments and whole carcasses of ten frogs of different dimensions," and Audubon mentions frog-catching as a characteristic of this species. Its cry, resembling the syllables *kay-o*, is clear and prolonged, but is not often uttered. These birds are about the size of the Red-tailed Buzzard, the Red-shouldered Buzzard being rather larger than the Winter Hawk, and they differ much in the color of their plumage.

In the genus *Circus* we meet with birds somewhat approaching the *Owls*, in having a collar of fringed feathers surrounding the face, and in the relative size of the head and neck. They are bold and vigorous birds, possessing a powerful and easy flight, but subsisting chiefly on such ignoble game as mice, reptiles and small birds, though when pressed by hunger fearlessly attacking the poultry. The common MARSH HAWK or HEN HARRIER, (*Circus Hudsonius*, Vieill.) is a well known species, inhabiting the whole United States and far to the North. Species closely allied to the present are found to exist in nearly all parts of the world, and for a long time this bird

was described as identical with the Marsh Hawk of Europe, *Circus cyaneus*. It is found dispersed throughout New England, but most abundantly where there are extensive meadows, and is said by Wilson to be very serviceable to the planters of the Southern States by the havoc it makes among the immense flocks of Rice Birds or Bobolinks, that at times are so destructive to the rice and grain fields. They possess a voracious appetite, and destroy multitudes of mice. An individual that I recently dissected contained the greater part of a young rabbit, and several meadow mice.

The Marsh Hawk breeds upon the ground, laying four roundish, bluish white eggs. Length twenty-one inches, breadth of wing, three feet ten inches; color above, glossy chocolate brown, slightly skirted with ferruginous; beneath, very pale ferruginous, marked with brown. J. A. A.

*For the New England Farmer.*

#### WASHINGTON AS AN AGRICULTURIST.

DEAR FARMER:—Perhaps a short account of Washington as an agriculturist, may be new and interesting to some of your readers. His views upon the raising of tobacco might well be pondered by our Connecticut valley producers of the weed. I copy from "Washington's Political Legacies," to which is annexed an appendix, containing an account of his illness, death, &c. &c. Boston, 1800.

"Colonel Washington was one of the greatest landholders in North America; his estate at Mount Vernon was computed in 1787, to consist of nine thousand acres, under his own management and cultivation: he had, likewise, various other large tracts of land in other parts of the State; his annual receipt from his estates, amounting in 1776, to four thousand pounds sterling, and it was then believed would have sold for upwards of one hundred and sixty thousand pounds sterling, which is equal to more than \$666,000. What his revenue was recently, we do not know, but there can be little presumption in supposing it was much increased under his prudential guidance, and practical economy.

"He allotted a part of the Saturday in each week to receive the reports of his overseers, which were registered progressively, to enable him to compare the labor with the produce of each particular part, and it is affirmed that this weekly retrospect was duly considered by this great man during the stormy movements of the revolutionary war, and his presidency of the United States. He has raised in one year, seven thousand bushels of wheat, and ten thousand bushels of Indian corn, on his Mount Vernon estates; in a succeeding year he raised two hundred lambs, sowed twenty-seven bushels of flax seed, and planted seven hundred bushels of potatoes: at the same time his domestics manufactured linen and woolen cloth enough for his numerous household, which amounted to nearly a thousand persons. With him, regularity and industry were the order of each day, and the consequent reflection made them all happy. Though agriculture was pursued by him with such undeviating attention, he used it rather as the means of his pleasure, than the end of his wishes, which concentrated in the labor to improve the well being of his fellow-citizens; and to

effect this, he desisted from planting tobacco, to employ himself in the introduction and fostering such articles of vegetation as might ultimately tend to a national advantage." F.

*Amherst, Mass., Oct. 17, 1860.*

#### GOV. FAIRBANKS' ADDRESS.

The address of Gov. Fairbanks to the General Assembly of Vermont, now in session, is an excellent one. A portion of what he says of the agricultural affairs of the State we give below.

"From an abstract of the seventh United States Census, it appears that in 1830 there were in this State two million six hundred thousand four hundred and nine acres of improved land,—a quantity exceeding that of any other New England State; and that our agricultural products for that year exceeded in quantity those of any of the same States, in the articles of live stock, butter, cheese, wool, wheat, oats, potatoes, hay, and a variety of other crops. The value of live stock, as shown by that census, was twelve million six hundred forty-three thousand two hundred twenty-eight dollars, and the aggregate of farming productions for that year, shows a valuation, including live stock, of about twenty-five millions of dollars, being nearly equal to eighty dollars for each individual of our population.

The well-known industry of our citizens, engaged in agricultural pursuits, and the capabilities of our soil, have been made available for increasing the amount of these products, under the stimulus of augmented prices, consequent upon the opening of railway communication with the markets. It may therefore be assumed that this department of industry has not only maintained its relative importance, but that it has, during the intervening years since the above date, experienced a constant and healthful growth and increase; still it is conceived that it is capable of far greater development, and a much more abundant increase.

Vermont is essentially an agricultural State. The great body of its citizens are engaged in agricultural pursuits. The salubrity of its soil, and the variety of its physical structure, adapt it to the cultivation of the most essential and profitable crops, and to the successful prosecution of cattle and sheep husbandry. Other important interests exist, and are successfully prosecuted; but it is to this, essentially, that we are to look for the most marked and healthy growth of the State in wealth and prosperity."

He says the evidence of thrift and prosperity is observable among all classes of the citizens of the State, but the remark is especially applicable to the department of agriculture. He recommends the establishing a State Board of Agriculture for the collection of statistical and other information relating to agriculture, to be embraced in annual reports for distribution throughout the State.

POETS make a book of nature, wherein they read lessons unknown to other minds, even as astronomers make a book of the heavens, and read therein the movements of the planets.



### A CRACK IN THE HOG-TROUGH.

Some time ago a friend sent me word that he gave, every day, nearly twenty pails of buttermilk to a lot of shoats, and they scarcely improved a bit on it. Thinks I, this is a breed of hogs worth seeing—they must be of the sheet-iron kind; so I called on him, heard him repeat the mournful tale, and then visited the sty. In order to get a closer view of the miraculous swine, I went into the pen, and on close examination found a crack in the trough, through which much of the contents ran away under the floor.

Thinks I, here is the type of much of the failures and misfortunes of our agricultural brethren. When I see a farmer omitting all improvements because of a little cost, selling all his good farm stock to buy bank, or railroad, or mortgage stock, robbing himself and heirs, thinks I, my friend, you have a crack in your hog-trough.

When I see a farmer subscribing for half a dozen political and miscellaneous papers, and spending all his leisure reading them, while he don't read a single agricultural or horticultural journal—thinks I to myself, poor man, you have got a large and wide crack in your hog-trough.

When I see a farmer attending to all the political conventions and coming down liberally with the dust on all caucus occasions, knowing every man who votes his ticket: and yet to save his neck, couldn't tell who is President of the County Agricultural Society, or where the Fair was held last year, I "unanimously" come to the conclusion that the poor soul has got a crack in his hog-trough.

When I see a farmer buying guano, but wasting ashes and hen manure, trying all sorts of experiments except intellectual hard work and economy; getting the choicest seeds, regardless of cultivation and good sense; growing the variety of fruit called "Sour Tart Seedling," and sweetening it with sugar, pound for pound; keeping the front fields rich and neat, while the back lots are overgrown with elder, briars, snap-dragon, and thistle; contributing liberally to the Choctaw Indian Fund, and never giving a cent to any Agricultural Society—such a man, I will give a written guarantee, has got a crack both in his head and in his hog-trough.

When I see a farmer whose hogs are so lean that they have to lean against the fence to sustain themselves while squealing, I rather lean to the conclusion that somebody that stays at home will have a lien on the farm, and some time the bottom will come entirely out of the hog-trough.

—Orange Co. Farmer.

**CIDER MAKING IN CONNECTICUT.**—According to the *New Haven Journal*, a very large business is carried on in cider making near that city, one town alone, (Cheshire) manufacturing 8000 barrels for market. It is first clarified, and then sold in the spring for bottling, at about one shilling per gallon. It is, when clarified, as pure as wine, and is, when bottled, in great demand at the South at \$5 per dozen. The *Journal* adds: "The fruit-growers of Connecticut can cultivate the apple with but little expense, and can realize at least 20 cents a bushel for all they can raise. The past season those who have mills at Cheshire have paid from 18 to 20 cents per bushel for all

they could find, taking them from the orchards where they have been collected, the raiser being subjected to no expense except that of picking and piling in heaps."

*For the New England Farmer.*

### ADDRESSES AT FAIRS.

**MR. EDITOR:**—In a late number of your valuable paper, it is proposed to discontinue the annual address at our shows, and to substitute therefor a discussion of some definitely proposed topic. This would do very well, provided you could be sure of speakers competent to conduct the discussion. In most of our societies, the announcement of a topic, that had not been particularly considered by the speakers, would result, as do many of those discussions at the Legislative Agricultural Meetings, in "*Vox præterea nihil*," [that is, empty sound.—ED.] No man can instruct others who has not well considered the topic on which he speaks. If he has reduced his thoughts to writing, he will be likely to have them better arranged and better condensed, than if he proceeds otherwise.

For forty years, I have attended such meetings, and am free to say, that much of the best instruction springing from them has been found in these addresses; especially as they are revised and published by the officers of the society. ESSEX.

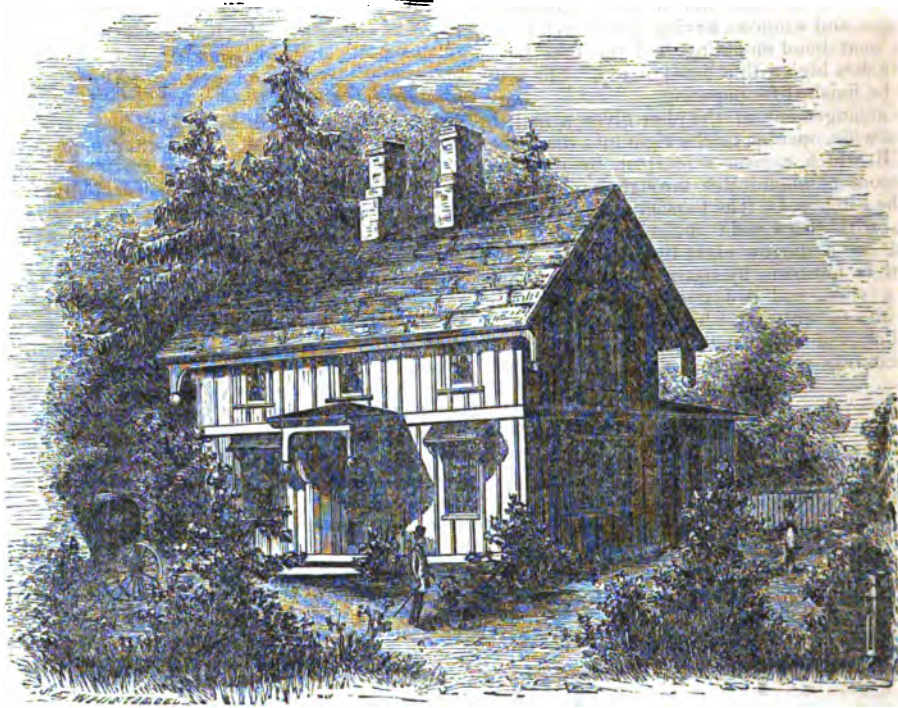
October 20, 1860.

**REMARKS.**—Nothing escapes the critical eye of Essex. We agree with him, that the addresses at our county fairs are usually sound and instructive,—still, a little diversion from the usual course may be profitable.

**INDIA RUBBER WATERPROOF VARNISH.**—A writer in the *Scientific American* says:

"I have used a solution of India rubber and turpentine for about twenty years, as a waterproof varnish for my boots and shoes. I make the application before blacking is put on, or else remove the blacking by water. When the leather is moist I take the solution of India rubber and apply it with a rag, taking care to rub it in; then I put the boot in a moderately warm place until the whole is absorbed. The process is repeated twice, or until the pores of the leather are filled, when the surplus is wiped off. In a few days afterwards blacking may be put on, and the leather will polish well. By this method of treating my boots I make them not only water-tight, but also much more durable, and the leather is always kept soft and pliable. I treat every pair of new boots in the manner described, and effect a considerable annual saving thereby."

**CURE FOR LOCKJAW.**—A young lady ran a nail into her foot recently. The injury produced lockjaw of such a malignant character that her physicians pronounced her recovery hopeless. An old nurse then took her in hand, and applied pounded beet roots to her foot, removing them as often as they became dry. The result was a complete and astonishing cure. Such a simple remedy should be borne in mind.



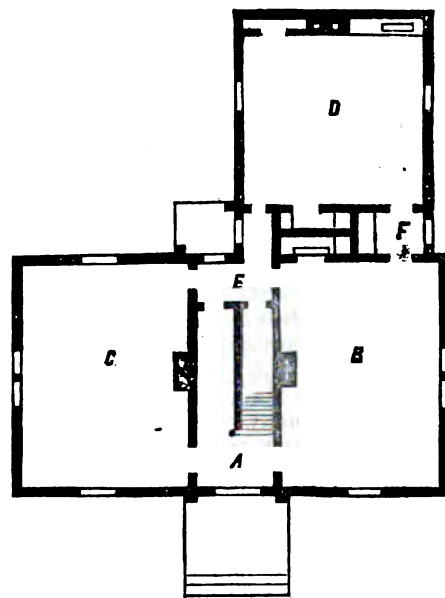
A SUBURBAN RESIDENCE.

We copy from the August number of *The Horticulturist* one of Mr. HARNEY'S attractive designs of a dwelling suited to the suburbs of a city. Persons about building may be greatly aided by referring to, or carefully studying designs from the hands of persons so well qualified as is Mr. Harney to prepare them. Even with the improved taste of the age in architectural matters, nothing is more common than to witness a departure from all good taste and correct architectural principles in the construction of our dwellings. We do not give this design, and other original ones, which we intend to present, merely as pictures to embellish our columns, but because they have an intrinsic value to those who wish to build and are willing to consult them. The editor of the *Horticulturist*, in describing this design, says :

The design which we here offer, was made for a gentleman in the vicinity of a neighboring city, and, we think, will be found adapted to the wants of many of our suburban builders ; combining, as it does, economy with convenience, and having, also, some slight pretensions to ornament in its exterior

It is to be constructed of wood, and may be covered in the vertical manner with sound inch-and-a-quarter plank, and two-and-a-half-inch battens. The front door is shielded by a broad hood,

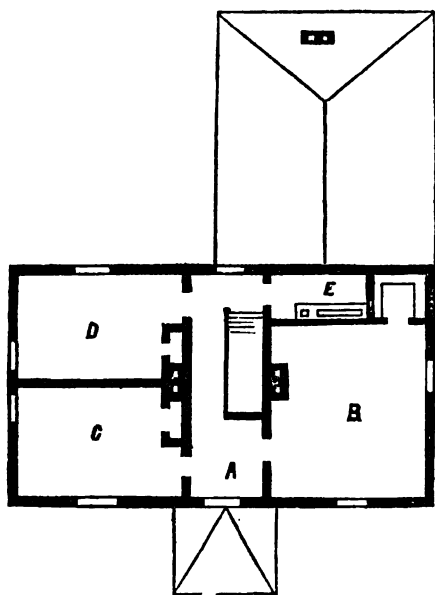
supported on heavy brackets ; all the lower windows have broad plank hoods. The height of the first story is ten feet in the clear, and the second is seven feet high at the plates and ten in the cen-



tre of the rooms, the space above serving as a ventilator for the whole house, having ventilating flues opening from the principal apartments.

The interior finish should be plain throughout, the doors and windows having plain architraves with a neat band moulding, and the base being eight inches high with a bevel on top. The walls are to be finished for papering.

The arrangement of the plan gives a hall, A, six feet wide, opening on the right into the living-room, B, which measures fourteen by nineteen. This room communicates through a passage, F, with the kitchen, D. The passage is to have three draws, with three wide shelves above, and is lighted by a narrow eight-light window. The kitchen is fourteen by sixteen, and has a fireplace, a sink, and two good closets. A door opens into the entry, E, which communicates with the cellar, and opens out upon the portico. It also connects with the parlor, hall, and living-room.



The second floor contain a hall, A, opening into the several chambers, B, C, D, and the bathroom, E. At the right of the bath-room is a large closet, belonging to the chamber, B.

The cost of this house would be about eighteen hundred dollars.

**KANSAS FOR SHEEP.**—Gov. Medary, of Kansas, has written an article for the *Ohio Cultivator*, from which we copy the following:

"In my travels through the territory, I have persuaded myself that Kansas is the best sheep and wool growing country in the Union, Texas not excepted. I have examined the country south and west, and have got myself into quite a fever on the subject. Extraordinary as has been our drought, I have not seen a spot, on high or on low lands, nor upon broken hill points, where sheep could not live and fatten. Is there any other soil in North America that can show such a tenacity for moisture? I think not."

*For the New England Farmer.*

#### FENCE POSTS.

MR. EDITOR:—I noticed an inquiry in your paper of Oct. 20, of Mr. R. H. Davis, concerning setting posts on land liable to heave out by frost, and also your remarks following. You say; "we know of no way to prevent posts being thrown out by frost, but to set them so deep that the bottom of the post shall stand on firm ground below where the frost reaches." Now I wish to inquire how much less a fence will rise every winter, by having long posts in the ground than those of ordinary length, say 24 to 30 inches in the ground. I live in a region where cedar rails are tolerably plenty, and have but little need of board fence, yet on mine, as on most farms, a small amount of board fences is desirable. My land is clay, and heaves badly with frost, yet I have but little trouble in making a fence stand, provided it is built in the right way. My way is to dig a hole two feet square, more or less, according to the nature of the soil, and set the post in the centre, then fill the hole with cobble stones and drive them solid with a crow bar during the whole operation of filling; then throw a very little earth over the top, which ought not to come in contact with the post.

I have a pair of gate posts and fence built in this way some 23 years ago, which stand as strong as ever, and will probably stand as long as the timber lasts; they still retain their perpendicular position, and have not been raised any by frost.

The reason why posts draw out, is because the earth freezes at the top and adheres strongly to the post, and as it freezes deeper the earth rises by its own expansion, drawing the post up from the bottom. The earth being wet and loose at the bottom settles into the cavity below the post, which prevents the post from settling back again when the ground thaws; therefore, the earth settles back to its original level, leaving the post at its highest point. Posts, when well set in stone, will not rise with the surrounding earth, because they have no contact with it, and no frost can penetrate below the bottom of the post with sufficient force to raise it, provided it is set two feet or more in the ground. D. BUCKLAND.

*Brandon, Vt., Oct. 24, 1860.*

**REMARKS.**—In cases where cobble stones are scarce, it might make the operation detailed above somewhat too expensive; but the operator must remember that it is expensive, too, to reset his fence every spring. Where the stones can be procured at small cost, the plan of friend Buckland is undoubtedly a judicious and profitable one. We shall adopt it when we come to set posts where they are liable to be thrown out by frost.

It has been well said, that a single year's crop of corn is worth more than all the gold of California. In addition to its other uses, it is now found that it produces a clear fluid, that burns without odor, without smoke, and is inexpensive, affording a good light in an ordinary kerosene lamp for half a cent an hour. The corn-oil is as clear and colorless as water.

*For the New England Farmer.*

### SKETCHES OF TRAVEL.

MR. EDITOR :—I improve my earliest spare moment to give you some account of my travels in New England, New York, Ohio and Canada, since my arrival from the Hawaiian, or Sandwich Islands, in the spring of the present year. Let me begin at once, without apology or introduction, save the above.

May 12th, 1860, I landed at New York, after an absence from my country of thirty-two years and six months. I am not about to tell you of my emotions when I set foot on shore, after so long a separation from the scenes of my childhood and youth. This, could I do it, a thing by the way exceedingly difficult, would be of little account to your readers. Some good, however, might accrue to them from a brief account of my journeyings through the country, especially as I had my eyes open to the state of agriculture wherever I went. Allow me, then, to give you my impressions of the country, of the farms, houses and barns which I passed, together with such new objects of interest as fell under my observation from May 12th, 1860, to this day.

After spending a few days in New York and vicinity, I took the cars, and travelled in this, to me, new and wonderful style, to your city, passing through Great Barrington, Pittsfield, Springfield, Worcester, and other pleasant towns. It was in budding spring time. The trees were covered with beautiful foliage, and many of them with blossoms, giving promise of the abundant fruitfulness with which the Great Husbandman has since crowned the year. The fields were being carpeted with grass and the springing grain, and the cattle on the hills and in the valleys seemed exulting in the liberty which the opening season was giving them from the rigors of winter. In the pleasant town of Great Barrington, I spent a little season with delight and profit; renewed my acquaintance with robin-red-breast, bobolink and whip-poor-will, one of which, and the only one I have heard since my arrival in the country, gave us some stirring notes one evening; visited the splendid country-seat and farm of David Leavitt, Esq., spending an hour or two in his picture gallery, and formed a slight, but pleasant acquaintance, with several families in the neighborhood. It is an excellent town of intelligent farmers. Why should such men or their sons go to California, or even to Pike's Peak, to seek for gold, or exchangetheir beautiful farms for lands further west? "Godliness with contentment" will make any man happy in a town like this, or in multitudes of towns in old Massachusetts. The Lord bless the good old State, I pray.

From Boston, early in June, I took up my line of march for Western New York. I tarried awhile in Oneida county. Here is much good land. The farmers I found hoeing their corn, beginning ere the sun had appeared, and toiling long after his last ray had faded on the distant mountain's top. It seemed to me a great while to toil in a single day, and, followed up, must wear upon the constitution. I need not say that our days and nights at Hawaii are much nearer of a length than with you in New England. I was glad to find, however, that farmers throughout the country, during the long days, have their evening meal

at about 5 o'clock, P. M. A great improvement, I think, on the old fashion. It must be an economical arrangement.

From Oneida county, I went to Watertown, Jefferson county, which I made my headquarters some ten days. Watertown is a beautiful and wealthy place, the residents intelligent and refined. The means of social, intellectual and moral improvement are richly enjoyed, and are extended, I believe, to all classes in the neighborhood, whether agriculturists or mechanics. From Watertown I rode with friends to Carthage, up the noble Black river, twenty-five miles or more. Riding in an open carriage, I had a fine view of the country through which we passed, the farms at one time highly cultivated, with excellent houses, painted white, with neat outhouses, and flower gardens in front. At another time, our road lay through a country quite new, with now and then an opening made in the wilderness of heavy timbered land, in the midst of which had been erected a small log house, and where corn and potatoes were growing among the stumps. I was glad to see that the residents of these new countries had commonly better barns than dwelling-houses, thus securing their crops and protecting their cattle, instead of expending their means at first in adorning their dwellings. Carthage is considerable of a village, having excellent water privileges, and is a manufacturing place. The same is true of Watertown, and of Teressa, another village in the same county. I was much pleased with Jefferson county, so far as I saw it. It seems to be a growing part of the great State of New York.

We took stage at Watertown, and rode about ten miles to Sackett's Harbor. From my early youth, I have heard of this place, and have desired to visit it; not because I supposed (I had no such thought,) that it was a pleasant village, or that the country around it had any particular attraction—but because it was one of the seats of the unhappy war of 1812; the place where government built barracks for soldiers, and ships of war to distress the enemy on Lake Ontario—the place where brother with brother fought and weltered in blood. It was the place, too, of graves, and as I rode along the way near the village, my guide said, "These hillocks so near each other, are the places where the soldiers who died in the barracks were thrown, and covered so slightly that every now and then the bodies are disinterred, or rooted up by the swine!" Some poor fellows of my own neighborhood were among those wretched men who left their bones on this common. As I walked about the barracks, and through this grave-yard, I felt that a soldier's life is mean and unworthy, by the side of the poor, but industrious farmer who earns his bread by daily toil. When will men be wise, and live in accordance with the will of Heaven? What an expenditure of money, of strength, and of life has been made at this point! Gladly did I move on to my next stopping-place, Rochester, Monroe county, N. Y. In 1817, I took up my abode in the then small village, now the flourishing city of Rochester. I made this my home during five years, though some part of the time I lived in a neighboring town, and I left in the autumn of 1822. Of course, the place has changed surprisingly. At first, I was bewildered, but on walking about, I found

many familiar places, and a few old friends. The rapids on Genesee river, the falls, both upper and lower, and two or three streets seemed quite natural. There have been striking improvements, not only in the city, but in the surrounding country. I spent two weeks in Monroe county, and was delighted with what I saw among the farmers. They were beginning to harvest their wheat, which was of good growth, and excellent quality. Oats were very heavy, corn promising, and the prospect of fruit of every kind had never been better. Here, for the first time in my life, I watched the operation of the mowing and raking machine. What an improvement on the old-fashioned method of cutting grass and securing hay! I find a great advance, as it seems to me, in the work of farming, while there is still room for progress in this noble employment. With crops so abundant, and means of securing them of so improved a character, I see not why the farmers of your whole country may not flourish, become comfortable, affluent, not to say wealthy.

The Lord bless the labor of all who till the ground, for our sakes, no less than for their own.

Yours affectionately, I. S. GREEN.

P. S.—In my next, I hope to speak of my travels onward—my visit to Ohio, the oil wells, &c., &c. Hope to write you soon, perhaps from Vermont.

*Whitesboro', Oneida Co., N. Y., Oct. 20, 1860.*

#### FATTENING HOGS—FERMENTATION OF FOOD.

Now is the time to give attention to the important matter of fattening swine, that is, critical attention,—so as to learn the comparative value between cooked and uncooked food, and between food that is fermented and food in which that process has, in no degree, not taken place. The following we find in the *Rural New-Yorker*:

Among the many of your contributors, I would ask for information concerning fattening hogs. I have farmed it for thirty years, and when I commenced, I adopted the plan of keeping swill barrels and saving all the surplus water of the kitchen, with the milk and whey, and mixing some kind of meal or middlings with it, then let it go through the process of fermentation, after which I fed it to the hogs. I supposed I was doing things about right, until last week, when travelling on the cars, I got into conversation with an intelligent appearing gentleman, who said this process was all wrong—that the fermentation destroyed the most of the fattening properties of the grain. He also said that making meal into pudding would not fatten as fast as dry meal. Now, I would inquire of your readers whether these things are so.

#### RAIN WATER NOT ABSORBED BY LEAVES.—

It has always been thought that the rain water which falls upon the leaves and stems of vegetables is gradually absorbed, and nourishes the plant. It appears, however, that this opinion is merely instinctive, and when tested by careful experiment, it proves unfounded, as is shown by a small paper lately published by M. Duchartre. For four years this author has endeavored to dis-

cover, by direct experiment, whether or no such absorption takes place. The plants submitted to these experiments were in pots, their stems and leaves being exposed to the rain, whilst the roots were prevented from absorbing any moisture, being hermetically closed up in the pot. All the plants submitted to this kind of investigation, gave similar results; after remaining exposed to the rain, sometimes for eighteen consecutive hours, they showed no increase in weight; indeed, in some cases, they appeared to have experienced a slight diminution.—*London Photographic News.*

#### EXTRACTS AND REPLIES.

##### EGYPTIAN CORN.

MR. EDITOR:—As "misery likes company," allow me to say that I, too, purchased the "mummy corn." My first impulse was to keep mum about it; but I deem it my duty to say that of the eighty-six kernels received from Mr. Crandall, only twenty grew at all, and this was more than one would expect from the appearance of the seed. Most of it must have been shelled from the top of an unripe or frost-bitten ear. It was planted June 2d, in good rich soil, and as well cared for as any need be. Behold the harvest! One ear some four inches in length, corn of two colors, with other unmistakable evidences of its having mixed with other varieties of corn. Many of the kernels were imperfect; this, with a few apologies for ears, is the amount of the crop. The stalks are still standing a monument of my folly and Crandall's honesty. Were they nearer my dwelling, I should expect to hear the wind screeching through their leaves, "Crandall corn, —came from Egypt,—may he ever have to eat it."

Let him be fed on this corn for the rest of his life, say I, and his body will become embalmed while he lives; as will his memory, by this disagreeable exploit. Pass him round. H. E. H. WOOD.

*Putney, Vt., Oct. 27, 1860.*

MR. EDITOR:—In reply to a request in your paper of the 13th ult. about the Egyptian corn, the seed of which was sent to me by M. E. Crandall, of Illinois, I beg to say that equally with your correspondent from Palmer, I and one of my neighbors have been humbugged. We planted it under the same favorable circumstances as to soil and culture, and the crop is an utter nullity—an acre of it would not produce a bushel of sound corn, even if the season had been two months longer. It is a tropical corn, similar to the Guinea corn of the West Indies, and good for nothing in any part of the corn-growing section of the Union.

Now, this Mr. Crandall either knew this fact, or he knew it not. If the first, he has raised money under false pretences, and if the latter, he has been an agent in the hands of some base speculator. In either case, he is equally reprehensible. Farmers are the most honest part of any population, and from that very cause most easily imposed upon. The shopkeeper who cheats, expects naturally to be cheated in return, and is accordingly always on his guard. But farmers are usually honest themselves, at least, so far as concerns the trifles upon which I am now discoursing, but they are often too slow in guarding against the arts of the designing. I would advise all farmers, when in future they read such an advertisement as that of Mr. Crandall, to send if they choose for the article advertised; but never to inclose any money. The impostor will thus be soon disclosed if he is an impostor, while the honest man will, if his articles are indeed valuable, become apparent by personal knowledge in the proper time. A SUBSCRIBER.

*Kensington, N. H., Oct. 26, 1860.*

##### ASPARAGUS.

I lately saw in your paper an inquiry respecting setting asparagus beds in the fall. I can speak from experience on this point. Last October I set about one and one-half square rods of ground to asparagus, and soon after, on the first of November, covered the plants carefully over with leaves, and put brush on the



leaves to keep them down. The result was almost a total failure; not one-twentieth part of it came up; but not for the want of being properly set, for this was done with great care. I would inform your correspondent that his plants will require a great deal of care and labor in weeding, yet I am not prepared to say that this labor will not be abundantly rewarded.

*Eliot, Me., Oct., 1860.*

A YOUNG FARMER.

#### TO PRESERVE PUMPKINS.

Cut and stew the pumpkin soft, sift through a colander or pumpkin sieve, then press the juice out through a cloth, and return it to the boiler. Weigh your pumpkin after it is pressed, and for every pound of pumpkin, take one pound of sugar. When the juice is boiled down sufficiently, add the sugar; when dissolved, add the pumpkin, and as much salt and spice of whatever kind you prefer as your pies will need. Pack in a stone jar and cover with molasses. Prepared in this way it may be kept a year. A heaping tablespoonful is sufficient for a pie. Add eggs as usual. J. E. T.

*Pittsfield, N. H., 1860.*

*For the New England Farmer.*

#### THOUGHTS SUGGESTED BY THE N. E. FARMER, OCT., 1860.

*Page 444.—Superphosphate of Lime in Corn-Hills.*—The impression most likely to be made by the first portion of this article—the impression or persuasion which most readers will be apt to receive from it—will be to this effect, or something like this, that superphosphate of lime is an excellent fertilizer for Indian corn crops. Whether or not it was the intention of the writer that such an impression should be left upon the minds of his readers, and that they should be led, in consequence thereof, to make purchases of articles sold as superphosphates, and to employ them as fertilizers for their corn crops, it is difficult, and perhaps of little importance to determine; but with whatever intention the writer penned this article, we think the majority of the readers of it will get from it such an impression as we have named, and be led to purchase and employ for their corn crops some one of the various articles which are sold to farmers as superphosphates, probably without much discrimination as to the real value of the articles sold under this name, differing as they do greatly in composition and in value for manurial purposes; and probably, also, without even a knowledge of the fact, that there are some “trashy mixtures” sold as superphosphates, which do not contain even one per cent. of soluble phosphates, instead of from twelve to twenty per cent., as the best superphosphates do, and which are not really worth more than \$12 to \$15 per ton, though sold to the unsuspecting farmer at \$45 and \$50. Now, as no friend of the farmers could allow himself to mislead any of them to their injury, and would gladly welcome from another, or make for himself, any correction or caution needed to prevent such misleading or injury as might result, as in this case, from any statements he may have made without due qualifications or cautions, we may reasonably presume that Mr. Holbrook will welcome, and that his readers will be benefited, or saved from disappointment, deception and loss, by the suggestions now about to be submitted to those who have read the article under consideration.

What, then, is needed, in the case of some, or perhaps many farmers, in order to prevent their being misled, to their disappointment or loss, by the article under notice?

First of all, let us take the case of those readers who are likely to get the impression, or draw the inference, that superphosphate of lime is an excellent fertilizer for a crop of corn, and that they may certainly calculate on an increased yield by purchasing and using some of the articles sold by that name. Those thus led to expect benefit and returns that would pay expenses or afford profits, and, of course, likely to purchase, if the article is to be had in any market within their reach, should be cautioned against taking up with the too common opinion that all superphosphates are alike, or that any article so called is just as likely to produce good results as any other of the same name. In the present state of matters as to articles offered for sale as superphosphates, and in consideration of the great probability that an unsuspecting farmer would be likely to have imposed upon him as a genuine and valuable superphosphate, some of the trashy mixtures which have been so unblushingly and so persistently pushed into market, it seems the duty of any one who reports well of the use of superphosphates, to caution those likely to be influenced by his report, to be upon their guard when they purchase, as there are articles of very varying degrees of value—some of them not worth more than a fourth or a third of that of others—sold by that name. It certainly would, at least, be kind and friendly, if not strictly a duty, that those who lead farmers to expect that the use of superphosphates will increase their crops and their profits, should suggest such cautions, or give such information, as may help those induced to buy through their representations to avoid being imposed upon by fraudulent manufacturers, and to secure a good, or the best article of the kind to be had.

We cast no reflections, certainly, upon Mr. Holbrook for his omitting to give any warning of the dangers which surround the person who is about to purchase a superphosphate, or for omitting to refer those who may purpose purchasing, in virtue of his recommendation, to some book, pamphlet or periodical in which they might find such information as would assist them greatly in avoiding the risk of being imposed upon, and in securing an article which would be worth their money, and likely to produce profitable, or, at least, paying returns. But since the need or utility of such cautions or such assistance seems not to have occurred to him, and since some of his readers may be purposing to purchase the article he has spoken so well of, before next spring or next planting time, we may presume that he will regard these suggestions as a useful addition to his article, and that those having any such intention will now take the hint and endeavor to procure such information as may serve to guard them against being made the victims of unprincipled and dishonest manufacturers, or teach them how to manufacture this article for themselves, or furnish them with the means of testing articles offered them, so that their genuineness and value may be determined, with at least an approximation to the truth.

There is yet another impression likely to be made by this communication of Mr. Holbrook, even as there is another class of readers. The class of readers, whose impressions from reading this article we have already noticed, consists of those who are in the habit of jumping to conclu-

sions quite too rapidly, and in disregard generally of all the laws of logic or sound reasoning; who, for example, when they read of any manure or any mode of culture having been productive of large crops in a single instance, immediately and without any consideration of the many influences and differences there may be between that particular case and that in which they may be purposing to make a similar trial of the manure or the mode of management, conclude that they will certainly obtain results equally large or profitable. The other class is made up of farmers of greater soundness of judgment and of less facility in jumping to conclusions which the premises or facts do not warrant. A reader of this class would probably notice that Mr. H. has said nothing definite about the amount of corn harvested, and that, therefore, there is no real foundation for the inference so hastily arrived at by the former class of readers, viz., that the superphosphate had produced quite an increase in the crop. True, it is said that the growth of the stalks seemed to be made more luxuriant; but it is known to men of discernment that greater luxuriance in the growth of the stalks or of straw is not always accompanied by a corresponding increase of grain or corn upon the ear. And even if, in this case, there had been a large yield of grain as well as a thrifty growth of stalk, a farmer of this class would not have considered a single case conclusive as proof of the benefit of any particular manure or mode of management, but would only value this particular result as one fact to be collated with many others before any safe and reliable conclusion will be deduced therefrom. A farmer of this class would, in order to ascertain the exact value of the statements made by Mr. Holbrook, immediately compare them with whatever similar reports he might be able to recollect or refer to, relating to the effects of superphosphates upon a corn crop. He would be able, probably, to recollect that the general result of applications of phosphates of all kinds to cereals has proved that they are far less serviceable in promoting the growth of grain, than they are in forwarding that of the grasses, the bulbous and other root crops, and herbaceous plants generally. He would be able, also, perhaps, to recollect or refer to the results of some experiments made with much care and accuracy by Mr. Harris, editor of the *Genesee Farmer*, and reported two years ago to the New York Agricultural Society. According to these experiments with artificial manures on Indian corn, experiments to which was awarded the premium of seventy-five dollars offered for the best—it appears that though the rows to which superphosphate had been applied were more forward than any other during hoeing time, yet they fell far behind at harvest, the increase in grain being small, and not nearly enough to pay for the cost of the superphosphate.

MORE ANON.

**DATES.**—A correspondent asks, in speaking of the dates of the communications which we insert, "Is it not better always to give the 'State,' as well as the 'Town?'" Certainly—and this we always aim to do; but in some cases, the postmark is completely illegible, and we have no means of doing so. "New Worcester" is a part

of the city of Worcester, Mass. When we publish an article coming from any town in this State we do not give the name of the State, but otherwise we give it.

#### PROPHECIES OF THE SEASON.

Where late the meadows blushed with bloom,  
And daisy flakes were white as snow,  
The spectral shades of autumn gloom  
Prophetic wander to and fro.

The hills, so long encrowned with green,  
A browner garb begin to wear;  
Gay summer half inclines to screen  
Her beauty from the daylight's glare.

The woods full-leaved stand waiting nigh,  
Their verdure touched with crimson stains,  
Yet loth to lay their honors by,  
As age to part with all its gains.

A sadder note from grove and glen,  
Whence all the robin's young have flown;  
While mournfully the little wren  
Pipes through the fading trees alone:

The brook, that prattled one sweet tone  
When summer mist was soft and dim,  
Keeps up a low incessant moan,  
That times with Nature's graver hymn.

The swallows, too, have left the eaves  
And flit and form in noisy bands,—  
The goldfinch plans among the leaves  
Her coming flights to southern lands.

Above yon mountain's rocky side,  
The wary hawk swings round and round,  
A friendless rover, winged with pride,  
That scorns the touch of kindred ground.

These, these, are but the first faint signs  
Of autumn's presence;—day by day  
She draws in bright but fading lines,  
The picture of her own decay.

ANTHONY HOXIE.

*For the New England Farmer.*

#### POSTS THROWN OUT BY FROST.

MR. EDITOR:—I noticed in the *Farmer*, to which I am a regular subscriber, the following question, viz.:

##### FENCE POSTS AND FROST.

Will you inform me, through the columns of your paper, of the best method for setting fence posts on frosty land, where every spring the fences are tumbling over, being hove up by the frost?

*Essex, Sept. 20, 1860.*

R. H. DAVIS.

To which you remark thus:—

"We know of no way to prevent posts being thrown out by frost but to set them so deep that the bottom of the post shall stand on firm ground below where the frost reaches;" from which I beg leave to differ, although I may not be correct in my views, having but a short practice in my particular theory. I own a small piece of land which is moist and low, producing good crops of grass, and is called "very heavy" or frosty. I have known the land twenty or more years, and have always noticed the posts being hove up and thrown about in different directions, which led me to the following experiment.

A year ago last spring some of the posts were so rotten that I procured new ones to replace them, and on taking up the old ones I noticed



quite a space between the bottom of the post and the bottom of the hole, which was two feet four inches below the surface. A thought struck me that the post was not raised by the ground heaving below the bottom of it, for it was hard and gravelly, but by the soft rich mould, composing the soil, separating from the former and taking the post with it; consequently, when the frost comes out of the ground, which often thaws at the bottom first, the soft mud settles under the post, enough to prevent its settling back into its place.

I then tried the following plan, which has so far fully sustained my views. I dug a hole two and a half feet square to the hard bottom, which in some places was not two feet deep, and carried the soil to my yard, which repaid me for the extra labor. I then got a load of gravel, very similar in nature to that under the post, (which should be alike, to prevent separation,) placed the post butt down, after tapering it a little about six inches at the bottom, filled in the gravel, punching it in with an iron bar, it being better than tamping with a blunt instrument. I cannot discover that they have started in the least. Last spring I set half a dozen more the same way, expecting good results from the experiments. I think the softer the ground, the larger the hole should be. N. F. ROBINSON.

*Brimfield, Oct. 23, 1860.*

**REMARKS.**—We are glad the inquiry about the throwing out of posts by frost has drawn out the information that friend Robinson had in his possession.

*For the New England Farmer.*

#### LETTER FROM GROTON.

"The fairest apple hangs on the topmost branch."

Yes, so it is said; and who has not seen in the centre of some fertile valley, protected from the chilly winds, a large, flourishing tree, whose golden fruit, on the heavily laden boughs, seems day by day to gather additional size and beauty? But as the eye glances on this luxuriance, it cannot fail of resting with a more than admiring gaze on one apple, which is not only conspicuous by its high and lofty station, but also by its superior form and richness of color. And what is said of this tree and this "topmost" apple, may be said of all trees and their fruit the present year in this town and vicinity. The fruit harvest is a very large one, and mostly gathered, and, what is not designed for winter use, is being dried and made into cider. Several orchards in this vicinity, and among them is the one to which the "axe was laid to the roots," a scraper to the trunks, and a saw and pruning-knife to the branches of the trees thereof, last February and March, yield from three hundred to a thousand bushels of fine fruit, and from ten to fifty barrels of cider, each.

Well, "harvest home" is the song, and the summing up of the harvest account, is the only remaining pleasant duty of the husbandman. The harvest, as a whole, is a bountiful one, although the rot and rust have affected the potatoes, more or less, and the severe frost of the first of the month the corn.

A most terrific thunder-storm, accompanied

with wind, hail and rain, passed over this town at about two o'clock on the afternoon the 26th ult. The storm lasted about one hour during which time the peals of thunder were very heavy, flashes of lightning unusually vivid; the hail-stones large, some measuring one inch or more in diameter, completely covering the ground in a few minutes, causing considerable damage to the glass in several dwellings at North Groton. Since the storm, the weather has been exceedingly mild and pleasant, affording an excellent opportunity for plowing and other out-door farm work. B.

*North Groton, Nov. 1, 1860.*

#### SAND PILLARS.

I have often witnessed a phenomenon on these sandy plains of Central Asia, which accounts in some measure for the innumerable sandy mounds that are found in some regions. When seen at a distance for the first time, it made a strong impression on my mind. About twenty pillars were in view, wheeling round and licking up the sand. As they passed along, a cloud of dust was raised on the ground, apparently eight or ten yards in diameter. This gradually assumed the form of a column, that continued to increase in height and diameter as it moved over the plain, appearing like a mighty serpent rearing his head aloft, and twisting his huge body into contortions in his efforts to ascend. The pillars were of various sizes, some twenty or thirty feet high, others fifty, sixty and one hundred feet, and some ascended to near two hundred feet. As the whirlwinds began gathering up the dust, one might have fancied that antediluvian monsters were rising into life and activity. The smaller ones seemed to trip it lightly over the plain, bending their bodies in graceful curves as they passed each other; while those of larger dimensions revolved with gravity, swelling out their trunks as they moved onward, till the sandy fabric suddenly dissolved, forming a great mound, and creating a cloud of dust that was swept over the desert.—*Atkinson's Travels in the Amoor.*

**RATHER STRONG.**—Col. Haraszthy makes the following statement in an address at the fair of Sonoma county, California:

"Why, sir, every profession and trade throughout the Union has its schools and colleges, and those who wish to become proficient in their special pursuits, undergo a regular process of training. The farmer alone—to whom above all the others perhaps 'knowledge is power'—is left to feel his way in the dark."

We had supposed that there were many "trades throughout the Union" no better off for "schools and colleges" than is agriculture.

**A BOND OF UNION.**—A writer for the *Home-stead* makes the following statement:

"My richest neighbor and poorest neighbor meet upon a common ground of fondness for celery; under the shelter of that vegetable spring up and flourish a variety of social feelings and neighborly courtesies."

*For the New England Farmer.*

### HIGHWAYS.

MR. BROWN:—Did you ever think that the public roads through a town are a pretty good index by which you may judge of the common sense of the people? I feel most sincerely that the public sentiment is not right yet, far from it, on the subject of roads. In our own town, although we raise one thousand dollars—money tax—I believe it would be economy to raise double that sum, and then have it judiciously expended. Why should we oblige our teams to drag loads through beds of sand, that might be covered with road gravel from a neighboring hill? Let all such places be covered and kept in good order, I say. Then the muddy places; what a scourge and vexation they are in March; and all capable of being put in good condition, if coarse gravel be put on early in the spring before the ground settles.

How does it affect you to ride over the same cobble stones day after day, and month after month, lying in the ruts? I cannot help complaining and wondering why the surveyors don't take their garden rakes and pass over the roads and clean them from such annoyances. Shouldn't you suppose that an intelligent surveyor would walk behind his cart while going over his district, and clear out every stone? I can assure you that it is not a universal practice yet.

The highways may be in a bad condition, even when a large sum is expended upon them. The rains that we have so frequently, do a great deal of damage. The water in our district generally runs in the middle of the road. It is not checked and turned out at the sides by bars, but follows the wheel track from the highest hill to the lowest hollows. I confess that my patience is sorely tried by such neglect. I know that if our roads were all properly crowned, most of the water that falls would be turned off. But the roads cannot be all shaped up for several years, and for the present, it is wise to open frequent water-courses at the sides of the walls, and build, quite across the ways, bars, to stop the water. I know that bars across the road are disliked by many. They ought never to be made so as seriously to jolt a carriage. A good model is a tortoise back; the wheels should rise gradually; more good gravel should be used, and the "bar" be longer.

I will tell you, Mr. Brown, just what I think we should have done on our roads. They should be repaired early in the season, with the best of road gravel, and not with sand, sods, garden loam and cobble stones. The water should be kept off, and not allowed, as it is now, to run in so many places, a good quarter of a mile. The loose stones should be cleaned off, at least once a month, by a competent person. May I expect that you will say, Amen!

Yours truly,

W. D. B.

REMARKS.—Certainly, we do. Few persons understand road-making—merely because they have not given attention to it, *as a science*; for road-making is a *scientific* work. We passed over a piece of road this morning in going from our dwelling to the station, less than fifty rods in length, which we believe has had enough expended upon it during the last ten years, to pave it

thoroughly with stone or iron—and yet it is a miserable piece of road, the mud being two or three inches deep and the wheels continually striking the stones under it. To make this piece of road nearly *perfect*, does not require a stone or a load of gravel, but simply a little judicious drainage. But road-making is held something as farming is; most persons who have ever seen a road, think they know all about making one.

### OUR CHANGING CLIMATE.

The frequent changes of our uncertain climate give rise to many forms of disease, and we often murmur and repine at their suddenness. But there is a bright, as well as a dark side in all the ordinances of nature, and Washington Irving has painted the bright side of the fickle season in the following glowing terms:

"Here let me say a word in favor of those vicissitudes of our climate which are too often made the subject of exclusive repining. If they annoy us, they give us one of the most beautiful climates in the world. They give us the brilliant sunshine of the south of Europe, with the fresh verdure of the north. They float our summer sky with gorgeous tints of fleecy whiteness, and send down cooling showers to refresh the panting earth, and keep it green. Our seasons are full of sublimity and beauty. Winter with us hath none of its proverbial gloom. It may have its howling winds and chilling frosts, and whirling snow storms, but it has also its long intervals of cloudless sunshine when the snow-clad earth gives redoubled brightness to the day, when at night the stars beam with intensest lustre, or the moon floods the whole landscape with her most limpid radiance.

And the joyous outbreak of our spring, bursting at once into leaf and blossom, redundant with vegetation, and vociferous with life; and the splendor of summer, its morning voluptuousness and evening glory, its airy places of sun-lit clouds piled up in a deep azure sky; and its gusts of tempest of almost tropical grandeur, when the forked lightning and bellowing thunder volley from the battlements of heaven and shake the sultry atmosphere; and the sublime melancholy of our autumn, magnificent in its decay, withering down the pomp of the woodland country, yet reflecting back from its yellow forests the golden serenity of the sky. Truly we may well say that in our climate, "The heavens declare the glory of God, and the firmament sheweth His handiwork. Day unto day uttereth speech, and night unto night sheweth knowledge."

CANADIAN AGRICULTURE.—The Canadian *Agriculturist* represents the Fifteenth Exhibition of the Agricultural Association of Upper Canada, held at Hamilton, last month, as the most successful which has yet taken place in the Province.

We judge by the fact that twenty-four pages of the *Farmers' Journal* are devoted to the award of premiums at the Exhibition of the Agricultural Association of Lower Canada, that its late fair at Quebec was equally successful.

## STEAM FOR FARMERS.



OW FEW, even among the most scientific and sanguine, anticipated, twenty years ago, the great variety of forms in which steam would be used, and the vast benefits which it would confer upon mankind. Those who have not paid much attention to the matter, suppose that its use is principally confined to factories, to propelling steamships, cars, and other things requiring a great amount of power. But such is not the fact. If a true tabular view were given, we should find that its use in small, minute matters, greatly preponderates over the large, bulky class.

Steam is now introduced everywhere, in the country as well as the city; in the dwelling-house as well as the factory; in the store of the merchant, the shop of the shoe-maker; into the kitchen of the hotel as well as every other part of the building, where it pumps, boils, roasts, bakes, stews, washes the dishes, and dries them, ready to go upon the shelves, and washes and irons the clothes; into the shop of the cabinet-maker, carpenter, piano-forte maker, baker, brewer, tinner, watch-maker, saddler, blacksmith, and vat of the tanner. It hoists boxes, bales, bundles and huge crates from the holds of vessels, and exhausts them of thousands of bushels of grain in a day, and deposits it in a loft up just under the clouds, ready to be let down again and passed between ponderous mill-stones moved by the same power, to be converted into flour or meal. It fashions tubs and pails, polishes the plates of the photographer, saws up huge blocks of marble into thin and delicate slabs, and works out and gives elegance of form to mineral teeth for the human mouth which almost surpass the happiest efforts of nature herself. Among all the blessings which it confers there is nothing in which it is more comfortable, nor, if generally employed, where it would be more profitable, than in *warming our dwellings*. Those who have not introduced it for that purpose, in a large house with a large family, and especially where there are young children, can have no just appreciation of the comfort, safety, healthfulness and economy in the consumption of fuel, which it confers when used for this purpose.

To the farmer, it has not yet been made plain of how much direct consequence it is to be in his

business,—though he has already learned with what facility his grain may be thrashed, his wood sawed, and his trees cut into boards or timber suitable for building, by the aid of its power. Indirectly, it has already conferred signal blessings upon him in the cheaper construction of the implements and machinery of the farm, and at the same time furnishing them to him in a lighter, stronger and better form. It will yet be more intimately connected with his business, aiding it in many ways, and, *perhaps*, successfully and profitably hitched to his plows in our small New England fields!

But general and indispensable as it now is, it is destined to become still more general, and to confer benefits still more signal on the human race, and to aid us to a higher and more perfect civilization. It is to become effective on our carriage roads at no distant day, and thus extend its blessings down to the toiling and sweating brutes. It will be no fancy talk for us, by-and-by, to say to the boy:—

"John, touch a lighted match to the kindlings under *Prometheus*, and in ten minutes drive to the door."

Ten minutes have transpired, and a light appearing carriage stands before us. It is about ten feet in length, sets a little nearer the ground than our common carriages, and is airy, and in every way comfortable and inviting. In front is an upright boiler, about eighteen inches in diameter, containing numerous vertical tubes, but entirely closed in by the wood-work of the carriage. The fire-box is on a level with the floor, and in the winter has the delightful appearance of a fire in a Franklin stove, and warms the carriage, or when the weather is sufficiently mild to make a fire unnecessary, is shut off at once by a simple device, so that no heat escapes to it.

In less time than is required to take a pair of horses from their stalls and harness them to a carriage, *Prometheus* is at the door, and though full of wonderful energy, is as quiet as a sleeping child. He neither paws up your gravel road, nor breaks his bridle to reach the springing grass, nor perils your life when getting into the carriage by impromptu plungings and rearings not much less dangerous than the plungings of a ship on a lee shore. There the giant stands, waiting your will. His breath is hot, to be sure, but there are no signs of fever or feverish anxiety about him. His pulses are regular, calm and strong. Jump in. Let us see, all seated—six ladies and six gentlemen, including the man with "the ribbons." "All right—go ahead." What was that, Mr. Meadows? I cannot tell you, sir, whether it was a corn-field, or a piece of sprout land. I had no idea we had gained such a speed as this. You are excited, sir—we have only

reached sixteen miles an hour. But with what ease, precision and comfort the old god carries us along! O, that Watt and Fulton, and a host of those worthies, were here to witness the result of their genius!

The trial having been successful, up-hill and down, as a locomotive for speed with moderate loads, it will prove equally so as a power to take our products to market, pump water, thresh and grind our grain, turn the grind-stone or cider-mill, or press the pomace, saw the wood and timber, or exhume rocks and stumps from their ancient beds! When all this is done, there will be an unexpended energy remaining, which may be transferred by a flexible pipe to a fifty-bushel feed box, where the fodder for twenty-four hours may be cooked in thirty or forty minutes, for as many head of cattle! In summer, with slow and stately march, we may see it moving a ten-foot cutter-bar, and prostrating and spreading the grass at the rate of two acres an hour, accompanied only by a small boy to guide it round the corners!

There are, undoubtedly, many other ways in which this young Prometheus may be used which we have not the penetration to foreshadow, and which will secure to us the lasting gratitude of all the laboring quadruped race!

We believe that a power something like this will yet be devised—that it will be cheap, the first cost being less than is paid every week in the city of Boston for a single horse,—that when at work the expense for fuel and lubrication will be but a trifle more than that of sustaining a working horse, and that when still it will neither eat, drink, catch cold and have a “distemper,” nor break its legs by falling down “through the trap.”

There cannot be a doubt that when old Prometheus stole the fire from heaven, he intended it expressly to heat water and make steam for farmers, as well as other people. Let us, then, be grateful for the blaze, and touch up the kindlings under a useful machine bearing the name of Prometheus!

**KEEPING HORSES' LEGS AND FEET IN ORDER.**—If I were asked to account for my horses' legs and feet being in better order than those of my neighbor, I should attribute it to the following circumstances: First, that they are all shod with few nails, so placed in the shoe as to permit the foot to expand every time they move; second, that they all live in boxes instead of stalls, and can move whenever they please; third, that they have two hours daily walking exercise when they are not at work; and fourth, that I have not a head-stall or track-chain in my stall. These four circumstances comprehend the whole mystery of keeping horse's legs fine, and their feet in sound working condition up to a good old age.—*Miles on the Horse's Foot.*

#### VARIETIES OF BARLEY.

Very little barley has been cultivated in this vicinity till recently. The variety grown here is that of the two rowed, having a long beard, and a gritty hull enveloping the grains. But everybody knows all about this and similar kinds of barley. But two or three years since, there was introduced into this country from Italy, through the agency of the Patent Office, a variety of hullless barley—some of the heads are two, and others six rowed, but it is long bearded. I sowed a small quantity on good land in May, 1859. It proved to be a short, weak-strawed affair, but yielded tolerably well. This year sowed it on a good loamy soil: the same short, weak-strawed barley resulted; the yield not great, raising but little over a bushel. I carried a bushel to mill, had it ground and bolted, the flour of which is as white, and makes as good bread as some of our poorer qualities of spring wheat. For “flippers” we prefer it to buckwheat. Upon the whole, I am rather sorry that I disposed of this “Tuscany barley” in such a summary way. I have also grown a small patch of the Nepal variety; this has neither hull or beard. It was sown too late, and was somewhat injured by the midge. If it shall prove a productive and otherwise valuable variety, it will become a great favorite among barley growers, unless they, like Young America, prefer a long beard to none.—LEVI BARTLETT, *Warner, N. H., in Country Gentleman.*

**LEAVES IN HOT-BEDS.**—From an article in the *Homestead* on “Leaves as Mulch and Manure,” we copy the following paragraph, which may interest those who have not access to proper manure for hot-beds:

“The use of leaves in hot-beds is one not to be overlooked. Laid in hot-bed pits, from which the residue of last year's soil and manure has been removed to the depth of twelve or fourteen inches, well covered, they will remain fresh, and but little frozen till time to get the hot-bed ready. Then a moderate quantity of potash water or wood ashes, mingled with the whole mass, will start a uniform and continuous heat.”

**CINDERS FOR PIGS.**—J. J. Mechi, of Tiptree Hall, Eng., has been publishing his experience in fattening swine, and, among other things, he has learned the fact “that pigs are very fond of coal ashes or cinders, and that you can hardly fat pigs properly on boarded floors, without giving them a moderate supply daily, or occasionally.” He says:—“In the absence of coal ashes, burned clay or brick dust is a good substitute. If you do not supply ashes they will gnaw or eat the brick walls of their sheds. I leave to science to explain the cause of this want. It is notorious that coal dealers, where pigs have access to the coals, are generally successful pig-feeders. Those who find that their pigs, when shut up, do not progress favorably, will do well to try this plan; a neighbor of mine found that a score of fat pigs consumed quite a basket of burned clay ashes daily. We know that there is an abundance of alkali in ashes.”

*For the New England Farmer.*

#### ANCIENT vs. MODERN TIMES.

I was very much surprised, upon reading an idea produced by "Old Spinster," that "our grandmothers were educated as they should be." Why, dear "Old Spinster," do you live in the present age or not? Our grandmothers' education of work was all right, I admit, but they possessed an intellect and powers which God had bestowed upon them for cultivation which were left to slumber in rude ignorance. I venture to assert that not one-fourth of our grandmothers could read or write, and would you have modern ladies about you thus unprepared to understand the true relations and responsibilities of life? You say that woman's labor is less severe now than in the good old times. Both man's and woman's hardships are lessened, through the aid of mechanical knowledge and machinery. I would ask what has brought about these means, and this great revolution? Is it not the cultivation of our noblest faculties and the advancement of knowledge? This is an age of progress, and we should thank Heaven that it is. If our modern wives and daughters must know nothing but to "bake and brew, make and mend," what, think you, will be the condition of our glorious country in the future. Woman's influence is mighty and untold; leave her in heathenish ignorance, and in one century you leave your whole country there also. Sheridan said: "women govern us; the more they are enlightened, so much the more shall we be. On the cultivation of the mind of women, depends the wisdom of men."

Not that she is to be heard in the forum or the political world, but her mission is silent, in the sanctum of home. From her teachings in that spot, there will emanate a glory to brighten the world and glitter far hence when she is sleeping in yonder valley.

The farm is truly the place for woman to exercise her powers most beneficially, when not devoted exclusively to care and labor.

While we reverence the memory of our grandmothers, and sigh for their hardships and unimproved minds, let us appreciate the effects of education upon this our modern age, and endeavor to the utmost to keep the ball of progress in motion.

POLLY.

*Enfield Centre, N. H., 1860.*

**VULCANITE TOOLS.**—The manufacture of abrading tools of vulcanized rubber and emery is one of the most recent novelties in practical mechanics. These tools, in consequence of their perfect evenness and great keenness, are found to be of peculiar utility to machinists, particularly in finishing, cutting or grinding the best quality of work. The process of manufacture is as follows: The emery is incorporated with vulcanite, or a composition of India rubber and sulphur. The compound is kept in a plastic state by heat, and is moulded with suitable pressure in moulds of metal, &c., like clay, or terra cotta work, and from the mould receives any shape desired. The tools made of this material can, it is stated, be used dry or with water, or with oil. When water is used, it gives a grindstone or ruffled finish. When oil is used, it presents a dead finish; and when used

dry, a beautiful polish is obtained. The wheels are formed with a hole in the centre, which can be enlarged when necessary by burning it out with hot iron. If a wheel gets out of true, or becomes uneven, it can be turned true and even in a lathe, as if made of iron.—*Exchange.*

*For the New England Farmer.*

#### THE BIRDS OF NEW ENGLAND—No. 8.

##### OWLS.

Hawk Owl—Snowy Owl—Acadian Owl—Richardson's Owl.

The *Nocturnal Birds of Prey*, the Owls, constituting the family *Strigidae* of naturalists, from their recluse and nocturnal habits, noiseless flight, grotesque appearance and hideous cries, have ever been objects of suspicion and awe with the ignorant and superstitious; and the "boding Owl," delighting in scenes of desolation, has always been regarded as a bird of ill omen. They have been represented as armed assassins, invading the stillness of the solemn hours of night with their dismal cries, relentlessly pursuing their murderous avocation in the dimness of twilight, and in the darker hours of the night, approaching their innocent, reposing and unsuspecting prey with a stealthy, spectral flight and deadly aim; or, as dismal, defective beings, necessarily leading a life of gloomy monotony, because incapable of enjoying the splendors of day; while in reality they are as perfectly adapted to the sphere allotted them in the admirable plan of Nature as their diurnal relatives of plunder, or any other tribe of animals to the life they lead: nor are they found to be half worthy of the proscription they receive at the hand of man, but on the contrary, most of the species are highly beneficial to the agriculturist, from their preying in a great measure upon the nocturnal vermin that ravage their fields. Poets, taking advantage of these popular superstitions, are prone to introduce the *Owl*, to heighten the effect of their descriptions of midnight storms, or scenes of melancholy desolation.

The *Owls* seem to hold the same rank among the birds, that the *Felineæ*, or Cats, do among the quadrupeds. From their solitary habits, chiefly exhibiting their activity and peculiar characteristics in the night time, still less is known of their interesting history than of the diurnal accipitrine birds. The species are not very numerous, but are widely distributed, some being found in all parts of the world, and sometimes the same species is met with over very extensive regions. But twelve species were known to Linnæus; we now reckon that number as common to New England; forty are found on this continent, and one hundred and forty species are at present known to naturalists. Their large, sensitive eyes incapacitate most of them for distant vision in the hours of bright daylight, though a few are observed to be quite diurnal, particularly those inhabiting the extreme northern regions. Their plumage is remarkably soft and downy, fitting them for a noiseless flight through the still night air, while their extremely sensitive auditory organs take cognizance of the least commotion around them. In fine, one need but contemplate their forms and organs to be at once struck with wonder at the nice adaptation of these birds to

the life they lead—doubtless to them one of pleasure and variety. Owing to their vision being defective by day, they appear quite stupid and inactive in the clear light of the sun, a few species being quite bewildered at such times, and allowing themselves to be taken by hand. The Crows, Jays, and most of the smaller birds, seem to take great pleasure in teasing them when thus situated, but are aware of their danger as soon as darkness approaches.

Commencing with the more diurnal species, we meet with the genus *Surnia*, in which the typical characteristics of the owl are less developed than in those more nocturnal, and considerably resembling some of the *Falconidae* in form, aspect and habits.

The HAWK OWL or DAY OWL, (*Surnia funerea*, Dum.) also known as the *Canadian Owl* and *Long-tailed Siberian Owl*, is a constant resident of the northern parts of both continents, migrating southward in winter, when they are occasionally met with in New England, and are sometimes seen as far south as Pennsylvania. The vicinity of the Arctic Circle, however, seems to be their favorite abode and place of breeding, where they construct a nest in trees, laying two white eggs. This Owl is quite diurnal, hunting by day as well as by night, and seems to have about as much the aspect of a Hawk as of an Owl, it evidently forming the connecting link between the diurnal and nocturnal rapacious birds. It is a fearless bird, preying much upon Partridges, and will boldly snatch up game killed by hunters, and it is said to often hover about them for that purpose. The White Ptarmigan is said to be its favorite food in winter.

The length of this species is fifteen to eighteen inches; color above, brown spotted with white; beneath, elegantly barred with dark brown and white.

The SNOWY OWL, or WHITE OWL, (*Surnia Nyctea*, Dum.) like the preceding, is an inhabitant of the remote Arctic regions of both continents, but in winter descends to milder latitudes, being met with here at that season, and is sometimes seen as far south as Florida. Wherever it appears it is sure to attract attention, from its large size and white plumage. It hunts with ease during the day, as well as by twilight; its usual prey consisting of rabbits, grouse, ducks, mice, and, it is said, even carrion; and it is described as being fond of frequenting the shores and banks of shallow rivers, over which it slowly glides, or perches on a projecting rock, in search of fish, which it clutches with a sure aim, whenever they come within its reach.

The desolate countries of Lapland, Norway, Siberia, Iceland and the country around Hudson's Bay are its most favorite haunts, where it is common throughout the year; and the forlorn mountains of Greenland, where the silence of death and desolation reigns almost supreme during a large part of the year, echo to the horrid notes of this wild and hardy monarch, which are so doleful that they are said to increase the gloominess of the desolate scene. This formidable hunter measures two feet or more in length, and five feet across the extended wings. Plumage, snow white, thick and downy, marked with lunated spots of brown.

The ACADIAN OWL, (*Ustula Acadica*, Aud.) is

one of the smallest of the Owls, but little exceeding a Robin in size; but, to use the words of Wilson, "like many other little folks, makes up, in neatness of general form and appearance, for deficiency of size, and is, perhaps, the most shapely of all our owls. Nor are the colors and markings inferior in simplicity and effect to most others. It also possesses an eye fully equal in spirit and brilliancy to the best of them." It is common to both continents, being frequently seen in Middle and Northern Europe; it is seen on the American continent as far north as Nova Scotia and Hudson's Bay, but most abounds in the Middle and Northern States, where it is constantly found. It exhibits a preference for the vicinity of the seashore, and dark pine forests; the melancholy and gloomy umbrage of those solitary evergreens forming its favorite haunts, where it sits dozing and slumbering all day, lulled by the roar of the neighboring ocean. It is extremely active by night, and has the reputation of being a noted and dextrous mouse-catcher. A very pleasing account of this little Owl may be found in the *Atlantic Monthly* for August, 1859. This species is but seven inches in length, and eighteen in alar extent; above, plain olive brown, spotted with white; beneath, streaked with pale ochre and reddish bay. This bird is often known as the *Saw-Whet Owl*, from its peculiar note, and sometimes as the *Sparrow Owl*, from its feeding upon these birds.

RICHARDSON'S OWL, (*Ustula Richardsonsii*, —) is a northern species, seldom seen as far south as Massachusetts, or even New England, even in severe winters, but abounds in the northern parts of the continent. An individual of this species, was killed one severe morning in last December, by the writer, and the specimen is now preserved. To escape from a pack of noisy Blue Jays that discovered it as soon as daylight appeared, it sought refuge in the vicinity of the house, but met a more fatal enemy. It has generally been described as identical with its European congener, *Ustula Tengmalmi*, or *Tengmalm's Owl*, which it very strongly resembles, but has finally been declared distinct, and appropriately dedicated to its enterprising discoverer, who has the following observations concerning it: "When it accidentally wanders abroad in the day, it is so much dazzled by the light of the sun as to become stupid, and it may easily be caught by the hand. Its cry in night is a single melancholy note, repeated at intervals of a minute or two, and it is one of the superstitious practices of the natives to whistle when they hear it. If the bird is silent when thus challenged, the speedy death of the inquirer is thus augured; hence its Cree appellation of *Death Bird*." On the banks of the Saskatchewan it is so common, that its voice is heard nearly every night by the traveller, wherever he selects his bivouac. The length of the specimen before me is eleven inches; extent twenty-four and a half; upper parts grayish tawny brown, with numerous white spots on the head and neck; lower parts, mostly yellowish white.

J. A. A.

HOW THE BEAN CLIMBS THE POLE.—Professor Brewer, of Washington College, Pa., communicates to the *American Journal of Science and Arts* the result of some experiments made by him



on climbing vines—the hop, the Lima bean, and the morning glory. He finds that they will climb around a transparent glass pipe just as well as anything else, and that they are warmest in their embraces when the pole is warmer than the surrounding air. During the day, the vine is all attracted toward the light, but at night, especially on cool nights, it turns to the pole. He learned, also, that the color of the pole makes no difference; the caressing instinct of the vine has no prejudice against any shade. The element of constancy is very largely developed, the vine, after it has reached its pole, showing a much stronger tendency to wind around it than it did before to reach it.

### EXTRACTS AND REPLIES.

#### VERMONT APPLES.

You will please accept a few Vermont apples; they are not sent because we think they are equal to some of your Massachusetts apples, but only to let you see some of our native varieties.

The dark red apple is a native of Barnet, and keeps well until late in the spring, and is familiarly known here as the "Granny Bayley." The other two varieties originated on the old Whiteland farm in this town, a part of which I now occupy.

The sweet one we call the Whiteland Winter Sweet. It is a good keeping apple and a good baking apple.

The other variety has been known here as the Pumpkin apple ever since my earliest recollection.

You can test the eating and keeping qualities, and while doing so please accept the best wishes of  
*Ryegate, Vt., Oct. 29, 1860. W. T. WHITELAND.*

REMARKS.—Thank you for the "Vermont apples." We have tested the eating qualities, but shall find it somewhat difficult to test their keeping qualities. You must depend, mainly, upon your native varieties of apples for your supply. They will probably be reliable when those introduced from other localities would fail.

#### SKIM MILK—APPLES FOR COWS.

Will you, through the columns of your paper, inform your readers whether milk fed to cows is injurious, or not? It is said by some to cause garget, and by others to cause them to shrink in their milk. Are apples injurious to a cow giving milk?

*West Orange, Nov., 1860.*

L. GAGE.

REMARKS.—We have never heard that skimmed milk fed to cows in proper quantities is injurious to them, and we do not think it is. Some persons place little value in apples as a feed for cows; others value them highly, and we are inclined to be found with the latter class. A friend who keeps two or three horses, and who is an excellent judge of them, told us the other day, that when his apples began to fall in September he gave his horses no more grain, but substituted about a peck of apples each day; that the horses had continued to perform their work as they had before, and that they continued in good flesh and spirits, and that while they enjoyed the apples highly as food, they had every appearance of doing as well as they did upon the grain.

Fed judiciously to cows, why should they not have a similar influence? By judiciously, we mean as grain is fed,—as a relisher and variety, but still as affording valuable nutriment.

#### HOW TO RELIEVE CHOKED CATTLE.

Seeing a communication in your last showing a good way to relieve choked cattle, I thought, for the benefit of your numerous readers, I would send a remedy that I have known for over twenty years. I have been

called upon to administer it several times during that period, and have never known it to fail. In some instances where all others have proved abortive, it has given the desired relief.

Take a small quantity of powder, enough to load an old-fashioned musket, do it up in some soft paper like a cartridge, raise the animal's head, draw its tongue, put down the cartridge as low as you can, so that the creature will attempt to swallow. After a few minutes let it move about, and soon the creature will be relieved and no damage be done to it in any way, which I have known done by the other remedy.

*Warwick, Nov. 5, 1860.*

HERVEY BARBER.

#### WOMEN AND HARD WORK.

Permit another New Hampshire girl to say a few words in your columns—not to complain of the hard tasks of farmers' wives and daughters—though I am glad the subject has been introduced; but to state briefly a fact or two in my own experience.

I am one of those farmers' daughters who have completed a regular course of education; of substantial acquirements, rather than mere accomplishments. Many an hour have I spent at home upon preparatory studies, while my hands were busily employed. When at school my bills were promptly paid, nearly half by myself; and I may safely say that had it not been for my own exertions, I should now have only a common education. Thus much has one farmer's daughter been able to accomplish; and I doubt not that many others have done even more, while obtaining an education.

I do not feel called upon at present to decide whether I will be a farmer's wife or not; but, were I placed in such a situation, I would endeavor to have good books and papers (among which should be the *New England Farmer*;) and I think that almost any one engaged in farming can afford a few of these for himself and family.

I hope your correspondent, "A. E. P.," will inform farmers' daughters how to get money, rather a scarce article among that class; and also reveal the secret spoken of, for the benefit of those, (myself included,) who are not afraid of hard work, and will not refuse a man merely because he is a farmer.

*Oct., 1860.*

SALLIE, of N. H.

#### COWS—FALL FEED—APPLES.

I wish to inquire of you, or of any who can tell me through the *Farmer*, what ails my cows? They had been in rich after feed about two weeks, at which time they all, four in number, dried up their milk full one-half, in, perhaps, two or three days. They had been put in the stable at night, and in the morning fed with a few apples, each; the quantity did not exceed eight quarts to a cow. Some of my neighbors think that the apples did the mischief; but I have been in the practice of feeding my cows with apples, when I have had them, and thought I knew how to do it, as the results have always been favorable. Please give your opinion of the cause of the evil, and also name a remedy, if you know of one, and oblige,

*Snow's Store, Vt., Nov. 5, 1860.*

ADIN BUCKER.

#### WHEAT IN WARWICK, MASS.

Sowed 30 qts. of wheat on 75 rods of ground, April 24, and sowed broadcast three barrels of wood ashes, May 22. No other manure the present year. Planted with corn and manured highly last year. Reaped Aug. 16 and 17, rather green, 390 bundles. Threshed 50 bundles Aug. 24, yielding 2 bushels, 2 qts. Making by estimation on the piece, 16½ bushels, or 35¼ bushels to the acre.

HERVEY BARBER.

*Warwick, Sept. 9, 1860.*

P. S. Since the above I have, with Hill's threshing machine, threshed the remainder and winnowed up 13½ bushels of No. 1 wheat and 1¼ bushels of No. 2. Making 16 7-8 bushels in all.

REMARKS.—This wheat was raised on the hard, rocky soil of Warwick, where it is somewhat expensive getting in a crop,—but it is a soil upon which wheat generally flourishes well.



## LAYING OUT GROUNDS NEAR THE HOUSE.

I have a small piece of land in front of my house that I wish to lay out for a front yard. I want to lay it out handsomely, and I am not used to such business, nor is there any one here who does understand laying out grounds in good shape. I hope you will assist me through the *Farmer*. E. H. P.

*Naugatuck, Conn., 1860.*

REMARKS.—Send to "Luther Tucker & Son, Albany, N. Y.," for a volume of their *Illustrated Rural Register*, in which you will find just what you want.

## REMEDY FOR CHOKED CATTLE.

As soon as you discover that the creature is choked, take hold of the windpipe, below the potato, or whatever it is, with both hands, having one thumb on each side, and work out. If that fails, take a horseshoe and put into the mouth to hold it open, then run the hand down the throat and take it out.

I knew an ox once that was choked with a potato to throw it out by giving him two or three spoonfuls of Cayenne pepper. C. M. FISHER.

*Cabot, Vt., Nov. 5, 1860.*

## A LARGE CALF.

Mr. Benjamin R. Willson, of Bristol, R. I., has a bull calf born on the 8th of April, which now weighs nearly 800 lbs. At the age of four months it weighed 500 lbs.; at five months 595 lbs.; at six months 705 lbs. It is half Devonshire and half Durham, is of a dark red color, well proportioned, and in every way a very splendid animal.

## THE CLOSE OF THE YEAR.

In the rapid march of Time, another of those periods defined as a year has nearly run out its last sands. The Seasons have succeeded each other in their regular order, bringing variety, beauty, and unnumbered blessings to us with them. They have brought the snow and rain and stormy wind, as well as gentle airs, refreshing dews and the grateful and all-invigorating sunshine. Each season has performed its part in the wonderful operations of Nature, filling the earth with gladness, crowning it with beautiful objects for our investigation and admiration, and providing every needful thing for the teeming, animated life that seeks support from her generous bosom.

No influences assigned to these seasons have been neglected, or left in an unfinished condition. If there were apparent defects in the short or unripened crops of some localities,—they were defects in our own imperfect vision only, and not in the Master Mind that controls and regulates them all. Perhaps a closer investigation of the laws of nature, and a more skillful management of the soils under our care, might have given a more gratifying result to our labors, and if so, it goes to show what yet remains to be done on our part to make the earth yield her full increase. Nature is certainly true to all the duties assigned her, whatever defects may appear in man.

Summer and Autumn have passed away. The crops of the farm have been perfected and gathered in. The leaves have faded and fallen, and now float on the breeze, strew the ground, or are

collected under fences and in corners where they will gradually decay. How emblematic of life! "Our earth at one season is clad in her beautiful dress of living green; the bright rays of a vernal sun enrich, expand and beautify every scene in creation. The soft warm air is filled with music, sunshine and perfume; and all nature shines out in unrivalled beauty and splendor. But the withering breath of a few revolving months robs the fields of their blooming verdure and loveliness, the forests and trees of their magnificent foliage, and causes the green-clad earth 'to lay her glory by' until the time shall come for the reproduction of flowers and plants, upon the face of nature. Change and decay are unfadingly impressed upon all things earthly. The eye lingers not upon an object, however beautiful and lovely now, but what the breath of Time shall some day mar or efface it."

"Where now are all the blossoms fair,  
Flowers of the sunny gleam,  
Which grew profusely everywhere  
Along the forest stream?  
Ah! their brief summer day is o'er;  
In these wild dells they bloom no more!

"Is not our day of life as brief?  
Do we not pass as soon away?  
Beholdst thou yon falling leaf,  
Traced with the lines of dull decay?  
Such is our life—thus do we fade,  
And falling, mingle with the dead."

Truly such is our life; the bloom of childhood, the freshness of youth, the vigor of manhood, the decay of age, and then the earthly drama is closed!

But—thoughtful reader—is not this in exact accordance with the other operations of nature, and is there in it any cause for sadness or alarm? If we have rightly improved the past, this is but the falling of the leaf, or the dropping of the seed, to germinate again and come forth in a new and higher life, and instead of oppressing us with sadness, should be received as we welcome the changing seasons, or the ripened harvests, with grateful confidence and love. The Father has ordained this change in us, as our highest good; it is our own imperfection that gives it a seeming evil.

Surrounded with so many manifestations of the Father's wisdom and love, as the farmer always is, he, of all men, should be filled with an enlarged faith and confiding trust,—and in this spirit he should sow and gather in his harvests, and set an example to the world of an unquenchable love and perfect obedience to the divine will. He cannot be a good farmer, or husband, or father, who is not a good man; and though his acres teem with fertility—and herds fill his stalls,—though sons and daughters grow up about him as the cedars upon Lebanon, he cannot be a true

farmer and citizen if the love of God be not in his heart.

There is but one thing to mourn over and be sad about in life,—and that is, *the neglect of duty!* All else is in the hands of Him who knows better than ourselves what is best for us, and will order everything for our good. Our prayer should be,—

“What conscience dictates to be done,  
Or warns us not to do,  
This, teach us more than Hell to shun,  
That, more than Heaven pursue.”

Our life, to be a happy one, must be made up of sweet affections and noble, voluntary actions and aims. We must not be content with leaving the world no better than we found it, but beautify the earth with well-directed industry and skill, and make it “as the garden of the Lord,” better because we have lived in it and wrought upon it. And while we study to improve the soil, we must strive to elevate the mind by our daily walk and conversation; impress it with hopeful and cheerful thoughts, and direct it into itself to find there “the kingdom of heaven.” Our *actions* will be the fruits of our life by which we shall be judged.

“Action is life!—’tis the still water falleth!  
Inaction ever despaireth—bewalleth!  
Keep the watch round, for the dark rust assalleth.  
Flowers droop and die in the stillness of noon!  
Action is glory!—the flying cloud lightens!  
Only the waving wing changes and brightens!  
Inaction only the dark future frightens!  
Play the sweet keys would’st thou keep them in tune.”

This, fellow-pilgrim, is our lay sermon for you at the out-going of the year. We do not regret its departure, because it has done all that it was created to do. Let us do the same, and our departure will be as consistent and peaceful as that of the year One Thousand Eight Hundred and Sixty.

**FLESHY BUT NOT FAT.**—In speaking of a “fully fatted animal” that was exhibited at the late State fair of the Agricultural Society of Michigan, the *Farmer* says:

There is a very great difference between an animal in full flesh and one perfectly fat, and yet there are many persons who have handled cattle all their lives, and who know so little about stock that they are entirely ignorant as to what a good, ripe, fat animal means, but are quite likely to pronounce a well fleshed ox fat, when in reality he has only rounded up his muscle preparatory to laying on a good coating of fat.

**SAND FOR HORSES’ BEDS.**—Mr. Small, of Dundalk, a veterinary surgeon of considerable experience, states that sand is not only an excellent substitute for straw for horses’ beds, but superior to straw, as the sand does not heat, and saves the hoofs of the horses. He states that sand is exclusively used for horses’ beds in his repository.—*Valley Farmer*.

*For the New England Farmer.*

### EGYPTIAN CORN.

MR. EDITOR:—Having seen Mr. Crandall’s notice in your valuable paper, setting forth the wonderful properties of the Egyptian corn, and being anxious to test the value of every thing that claims to tend to the advancement of agricultural matters, I mailed to him one dollar, and in due time received a small package containing 125 kernels of the corn, with directions for planting, hoeing, &c., all post-paid. On the 14th day of May I planted 120 kernels, and in six or eight days 31 of these shot forth their puny stalks; and on the 1st day of July, the remaining five kernels were planted, but only one of them came. The 32 stalks were watched and tended with the utmost care, according to the directions, as near as possible; and on the 28th of September, the corn was harvested, though in a perfectly green state; the stalk planted in July having just “silked out.” Taking the best hill for a sample, there were six stalks, all apparently from one kernel. On these were fourteen ears, from two to five inches long, that had corn on them, but not filled out over the end, nor ripe. Besides these, there were fifteen ears set and silked, but no corn. I am confident the corn cannot be profitably raised in New England, either for the corn or the fodder, for the stalk is hard, wiry, and of a waddy texture, and wholly unfit for any kind of stock.

*Pomfret, Vt., Oct. 29. SAMUEL S. DOTON.*

REMARKS.—See article below.

*For the New England Farmer.*

### EGYPTIAN CORN AGAIN.

I saw an advertisement in your paper last May, recommending Egyptian corn, and sent one dollar to Mr. Crandall for some of it. He sent me 128 kernels which I planted the 18th day of May and about one-sixth of it came up. I got one cob and a silk, and no corn. My other corn got ripe. I once thought your paper came from the house of prayer, but I am afraid it has turned into a den of thieves.

G. W. P.

*Tyson Furnace, Vt., 1860.*

REMARKS.—This will answer for the Egyptian corn. The reports to us are all of the same character. It was “a sell,” as the “boys” call it, and no mistake. We do not intend to publish any thing, even as an advertisement, that is not open, fair and honorable—and there was no reason apparent why we should distrust the fairness of Mr. Crandall’s advertisement. We shall be on our guard in the future, and hope the reader will. He must remember, however, that *because* we publish an advertisement or a communication, we do not endorse its sentiments. We sometimes publish both that we have no faith in whatever. A newspaper, under certain conditions, is a medium for the public voice, and an editor does not always feel bound to notice what he may consider erroneous, but leave it for the criticisms or commendations of others.

### THAT TRACK.

The Editor of the *Homestead* attended the late Fair of the New London County Society. The association has leased twenty acres of ground, near the city of Norwich, for its annual exhibitions, and, among other fixtures, has prepared an excellent half-mile track. The contemplation of this level, wide and well rolled highway must have left the most pleasing impressions on the mind of the sedate Editor of the *Homestead*; for he writes out an account of the show, in which we find such facetious reflections on the future of this "circular show ground" as the following:

It is furnished with a judges' stand, and a spacious amphitheatre of seats where farmers' wives and daughters, and genteel ladies from the cities, can look on and see the sport of fast horses and faster men. We should think it was a race-course if it was in any other place, and if running horses for money was in fashion. But appearances are deceitful. Sometimes they mean a good deal more, and sometimes a good deal less than they ought to.

Some have fears that this track or circular show ground will degenerate into a race course; that if it do not become such at the fairs, it will be used for such purposes on other occasions. Here it is in the neighborhood of a city, and the Society has no use for it beyond three days in the year. It is so good a track and so handy, why should not other people have the benefit of it? But such fears are probably a little old-fogyish.

There are others who are afraid that the interest of the multitudes who come up to the farmers' anniversary will be all concentrated upon the track, and the fair will become mainly an annual horse fair; that if the horse is introduced every half day in the exhibition, not much else will be seen but horse, that the women and children will hear nothing but horse talk, and will go home to talk and dream of horses for a month after the fair; that the mothers will be naming their babies after fast horses, and the family Bibles will be lit up with blazonry of modern horse nomenclature; as for example, Flora Temple Smith, born Oct. 10th, 1860—Patchen Smith, Nov. 1st, 1861.

Now, ye gentlemen of the old school, please put off your spectacles, and do not see too much. We will say a word in behalf of the management. There may be some danger of the calamities you imagine, but they can be guarded against. Greater speed is what is wanted in all domestic animals, including man, and the track can be so used that it will result in quickening the pace not only of horses, but of all New London County. Perhaps you have overlooked in the programme a foot-race, with a prize of ten dollars for the greatest human speed. This is classic, and as you love the good old times, the managers have brought something from heathen Greece for your entertainment. Men and ambitious youth emulous of fame and an X mark are to scour the track promiscuously. You have often complained of Bill's laziness, and scolded Seth as a slow-moulded blockhead. Here is something that will take the mould out of them, and limber their joints. We want nimbler feet on the farm, after the plow, after the cart, after the cows, everywhere, and there is nothing like exercise to make perfect. The track is not simply

to perfect the speed of horses, but of men and other animals.

Probably another year the programme will be varied somewhat, and be made still more practical. We might have a race with loaded wheelbarrows, say ten dollars to the highest speed in wheelbarrow, loaded with three hundred pounds of dirt, best two in three, half mile heats. This would bring out the Michaels and the Patricks, and would tend to quicken the pace of all who use wheelbarrows, in all parts of the county.

Then we need a faster gait in cows, especially in those that run in poor pastures, where they have to walk far to get their food. Now many a cow is not able to walk far enough in a day to get a full stomach, and does not make the milk or butter she would with a higher speed. Perhaps we shall have a premium on a cow race, best three in five.

Then cats are a neglected class of domestic stock, that need to be improved. Many a mouser now just miasms her prey for lack of a little higher speed, and the farmers' cellars and corn-cribs suffer by reason of the slow gait of cats. If they could be brought up to a 2.40 speed it would be the salvation of many a grain bin and root cellar. Thousands of dollars are sacrificed every year to a slow moulded race of cats. Shall we have a cat race?

Indeed, there is hardly an animal upon the farm that does not need rubbing up, and that may not be improved by a judicious use of this track. Many a hen brings up a lean, half-starved brood of chickens, for want of a higher activity in scratching. Shall we not have a hen race, in which the delinquent biddies shall be made to come up to the *scratch*?

So you see, gentlemen of the old school, that your fears about this track's running away with the Society are utterly groundless. It is designed to bring up universal nature, including yourselves, to a higher speed.

**RAISING COTTON AND CORN.**—A correspondent of the *Southern Rural Gentleman*, in an article advocating a greater diversity of agricultural products at the South, makes the following statement:

"I was told by a planter this summer, that he had sold twenty-one bales of his last year's crop for \$170 nett. This cotton grew on about twenty-one acres of the best land in the world, and land that would have produced sixty bushels of corn per acre with the same culture that was bestowed upon it while in cotton, could have been saved with one-fourth the labor that it took to save the cotton; and would have amounted to 1260 bushels, or \$1260, and that at home and in the crib."

**AGRICULTURAL METEOROLOGY.**—The Smithsonian Institution is preparing, by order of Congress, a most interesting report on agricultural meteorology, which will be a welcome boon to our farmers. Besides meteorological statistics, collected during the last ten years at nearly four hundred stations, it will contain the arrival and departure of birds, fishes, and other migratory animals, and also the time of planting and harvesting of crops, etc., at different parts of the United States.

## A NEW VOLUME.

Sustained and cheered by the steady patronage of the industrious and intelligent farmers of the country,—but chiefly of New England—and essentially aided by the mechanic, inventor, merchant and professional man, and especially by clergymen in the latter class,—we shall enter upon the Sixteenth volume of the Weekly *New England Farmer*, and the Thirteenth of the Monthly, with a determination that it shall keep pace with the progress of the age, and within the scope of its aims, in whatever will tend to interest or be of pecuniary value to its readers.

It shall be printed upon good paper and a large, fair type, so that it shall not discredit the noble art of printing, and so that it may be read by eyes older than they were last year, and do them no harm.

It shall be issued promptly, so that it shall be a constant and reliable visitor, not a spasmodic one, coming just as you are sitting down to dinner, when you least expected it, and when your usual leisure hour has passed that you could have devoted to it.

It shall contain in a condensed form, notices of all the important general news of the world that shall reach our shores, in the Weekly form, and of the agricultural in the Monthly.

Each of the forms shall be illustrated with such engravings as will be of practical value to the reader in his business of life, and not introduced merely as embellishments to please the eye. Skillful designers and artists have already been engaged to furnish them, and they will be scattered through the pages of the coming volume.

The attentive reader has already observed that very little has been given in the form of essays, or extended articles upon old practices or new theories,—the editor believing that his readers are mostly engaged in the active business of life, and prefer brief thoughts and words, just as they spring from other active minds, and that the comparatively few who would like to have subjects more thoroughly discussed, can readily find all they want in the excellent agricultural books that have now become quite common.

The favors of correspondents have heretofore been so numerous that our space has been mainly occupied with them, so that we have not availed ourselves of the excellent articles in our exchange

papers to such an extent as we have often desired to do. Still, every exchange paper is carefully examined, and we believe there is not one upon our list that has not been extracted from, and proper credit given it, during the year now closing.

We desire to express our thanks and obligations to *correspondents* for their frequent and valuable articles, and to ask a continuance of them. The benefits are not ours alone, for whoever writes carefully upon a subject not only impresses what he writes more firmly upon his mind,—but the writing leads to a closer thought and investigation, and, consequently, to a better understanding of the matter under consideration.

We hope farmers, and especially young men, will write often, and will not wait until they think they can give a finer turn to a period. We want the ideas, and will cheerfully correct any inaccuracies of expression that may occur through haste, or a want of practice in composing.

Finally, we mean to be up in the morning, and keep along as closely as possible with whatever seems to be sound progress in the art of cultivating the soil, and lay it before the reader while it is fresh and new. We have no “hobby” or “Express pony” to ride—nothing of the kind: our interest is your interest, and yours are ours,—so let us amble along through the pleasant journey together, and pluck flowers, taste fruits, drink at the crystal brooks, and make the world a happier and better one than we have lived and labored in it in the year *Eighteen Hundred Sixty-One!*

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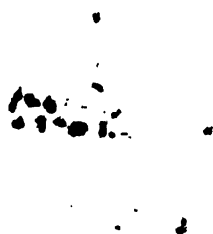
WISH 'T WAS TRUE OF ALL OF THEM.—Col. J. F. H. Claiborne closes a letter to the *Southern Rural Gentleman*, written in New York, with the annexed paragraph, a compliment to which some “northern farmers” we are sure will feel that they are not entitled:

In farm houses and equipments the northern farmers are far ahead of us. Their work horses are kept like carriage horses, well fed, well curried three times a day, covered with sweat-cloths the moment they stop work, and carefully littered and stalled. Nearly the same care is taken with their oxen and cows. Even their choice hogs are nicely curried down. Their farming implements are kept in better order, and always carefully cleaned before being put away. Their rule is, “a place for everything and everything in its place.”













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